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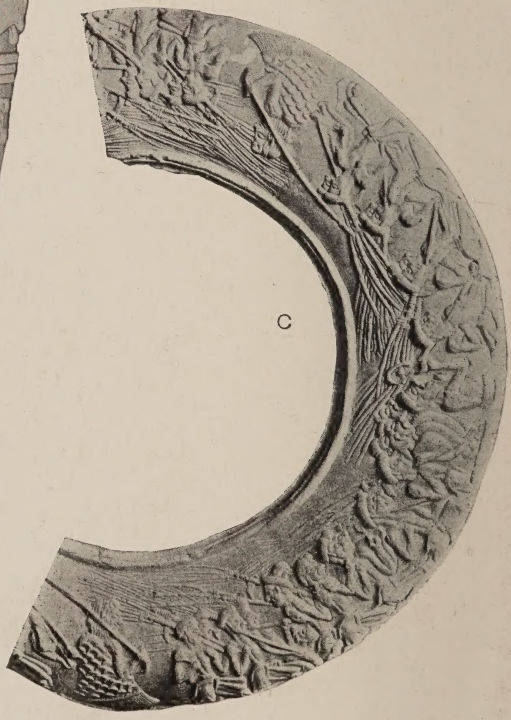

PLATE I

VASES FROM HAGIA TRIADA

SCALE—A 1 : 3, B 1 : 2.

THE DISCOVERIES IN CRETE

AND THEIR BEARING ON THE HISTORY OF ANCIENT CIVILISATION

By RONALD M. BURROWS
PROFESSOR OF GREEK IN THE UNIVERSITY COLLEGE, CARDIFF

WITH ILLUSTRATIONS

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PREFACE

THE present book is an attempt to meet a need that has been widely felt during the last few years, not only by classical scholars, but by the general cultured public. Mr. Arthur Evans's discoveries at Knossos made an impression on the popular imagination when they were first presented to the world six years ago, and the impression was deepened by the wonderful exhibition of Cretan art at Burlington House two years later. Even at that time, however, the accounts of the excavations that were accessible to the public were as fragmentary as they were fascinating. Since then the mass of new material has been so great that it has taken Mr. Evans all his time to publish the details as they came out in the various learned Journals which had a right to expect them. The promptness with which the result of each year's work has appeared is remarkable, and it has been out of the question to expect from Mr. Evans a general survey of the ground until the completion of the excavations. These have now been going on for six years, at Knossos and on other Cretan sites, and are not nearly completed. It may still be years

before we see, what we all look forward to, the great and final book on Knossos.

Meanwhile learned monographs on different sections of the subject have been fast accumulating. They form the principal contents of six successive *Annuals of the British School at Athens*, and a not inconsiderable portion of the six corresponding volumes of *The Journal of Hellenic Studies*. There is hardly a specialist journal in the world that has not contributed something to the solution of the problems involved, and many of them are not easily accessible. Those of Italy, in particular, whose contributions to the subject are of next importance to our own, are undeservedly difficult of access in this country.

It is not only, too, that the literature of the subject is extensive: the literature of any subject is, if you go deep enough. The commendable promptness of the yearly reports has brought with it one inevitable corollary. Each of them largely, and often tacitly, corrects and modifies those that precede it. The Eastern Court of one year becomes the Central Court of the next; the Quadruple Staircase of one illustration loses the point of its adjective when the remains of a fifth flight are discovered; the Middle Minoan of one stage in Mr. Evans's searchings after truth is subdivided into three, or has its edges, perhaps, shaded off into Early Minoan III., or Late Minoan I. We have another Labyrinth, with many windings

and pitfalls. The bewildering quickness, indeed, with which everything moves is itself a tribute to the brilliance and fertility of Mr. Evans's ideas. He leads, and the other distinguished archæologists who are at work in the same field follow, and follow at a distance. The world outside cannot follow at all, and urgently clamours for help.

It is this help that the present book attempts to give, and the moment of its appearance, during a partial lull of excavation, is an opportune one. There is a chance to take breath and gather up the threads, with the possibility that the next month's spade-work will not put us out of date. It is written, as far as possible, in untechnical language, and does not expect its readers to know by instinct what is meant by a "Schnabelkanne," or a "Vase à étrier." It aims at giving a picture of Cretan civilisation as a whole, and at presenting it in a manner that will make it alive and real. References, however, to the original publications have been given throughout, and it is hoped that the book may thus serve, not only as a general introduction to the subject, but also as a bibliographical guide to students who wish to pursue it seriously. Its main object is to give a clear and comprehensive account of where we stand, rather than to embody the writer's original research; but the criticism of Minoan Chronology (pp. 44–6, 50–1, 66–83, 93–7), the argument as to

the Four Labyrinths (pp. 109–26), and some of the lines of inquiry opened up in the last four chapters, embody suggestions that are, I think, to some extent new.

The criticism that there might with advantage be more illustrations is an obvious one. That the book should be cheap, however, was more important than that it should be illustrated; and a desirable result will be attained if readers insist on their nearest public library taking in *The Annual of the British School at Athens* and *The Journal of Hellenic Studies*, in which admirable reproductions have appeared of three-fourths of what is here described. The illustrations that are here given are at least characteristic and useful. The Strata Section gives some idea of Mr. Evans's method of classification, and the Cupbearer, on the cover, of the level of excellence reached by the art that he has made known to us. The Sketch Map of Crete is probably a better one for the purpose than any published elsewhere, and owing to the kindness of Mr. Evans and the Committee of the British School at Athens it has been possible to make the Plan of the Palace of Knossos an advance on any that has yet appeared. It is hoped that this plan will be of use to students as well as to those who visit the spot. The last that Mr. Evans published was in 1902, and even the specialist finds some difficulty in fitting into

their proper places and relative distances the important discoveries of the three succeeding years of excavation. These it has been possible to show by a system of arrow-heads and approximate distances, while the marking on the plan by a series of numbers of the principal parts of the Palace mentioned in the text makes their identification easier than it is in the original publications. Mr. A. H. Hallam Murray has given me the benefit of his great skill in draughtsmanship in the preparation of the plan. The two interesting vases from Hagia Triada, which I am enabled to reproduce by the great kindness of Professor Halbherr, have never yet been published in England.

My obligations are great and numerous. They are first and foremost to Mr. Evans himself, for unfailing help and kindness at every stage of my work. After him I owe most to his first lieutenant at Knossos, Dr. Duncan Mackenzie, and to Professor R. C. Bosanquet, late Director of the British School at Athens. To these three archæologists, and indeed to all of those who, whether as principals or assistants, have conducted the excavations in Crete, I wish to offer a sincere expression of respect and admiration. Crete has been fortunate in its excavators, to whatever nationality they have belonged. If, in what will be acknowledged to be relatively a small number of cases, I have ventured to put forward opinions that they

apparently do not share, I can assure them that I do so with diffidence, and with the consciousness that it is to their ungrudging labours and their scientific spirit that I or any one else owes the opportunity of forming an opinion at all.

Further obligations in regard to particular sides of the subject will be acknowledged in the foot-notes. My friend Professor R. S. Conway has allowed me to incorporate as an Appendix an important philological note on my suggestions as to the possible derivation of the word Labyrinth. On Egyptian matters I have received valuable assistance from Professor von Bissing, of Munich, and Mr. H. R. Hall, of the British Museum; Mr. L. W. King, of the British Museum, has also been kind enough to allow me to make use of an unpublished discovery of his in regard to the early history of Mesopotamia. It would be ungracious to mention the British Museum without adding an expression of gratitude to Mr. Cecil Smith, and all the officials of the Græco-Roman Department, whose courtesy and patience makes the work of research so much easier for many of us. I must also thank the Editor of *The Church Quarterly* for allowing me to make use of material that I published in it a year ago; at one time it seemed as if it would bulk more largely in the present book than it has in point of fact. My former pupil, Miss G. E. Holding, Classical Mistress of the North

London Collegiate School, and my present pupil, Mr. J. H. Sanders, Exhibitioner of Balliol College, Oxford, have also been of great help to me in verifying references and correcting proofs.

It is scarcely necessary to add that neither Mr. Evans nor any other of those who have helped me must be held responsible for any views here expressed, unless they are directly attributed to them. In such cases I trust that they will be found to be correctly stated.

RONALD M. BURROWS.

CARDIFF, *April* 1907.

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THE DISCOVERIES IN CRETE

CHAPTER I

THE PALACE OF KNOSSOS AND THE SEA POWER OF MINOS

SINCE the famous telegram in which Schliemann informed the King of the Hellenes that he had discovered the tomb of Agamemnon, there has been nothing in archæology that has made such a vivid impression on the popular imagination as Mr. Arthur Evans's excavations at Knossos. The Minotaur! the Labyrinth!—such words do not suggest the solemnities of antiquarian research. The average fairly equipped scholar knows that the French have explored Delos and Delphi; but, unless he is working at archæology, he does not know what they have found there. The work of the British School at Megalopolis and in Melos is familiar only to the more painstaking members of the Hellenic Society. Knossos alone appeals to no mere esoteric audience of specialists. It moves along the broad ways, and carries us back, behind our learning and education, to the glamour and romance of our first fairy stories.

Nor is the impression solely due to the nature of the material; it is largely due to Mr. Evans himself. It is not only that he has the gift of clear and attractive writing, or that he tries consciously to interest a wide

public in work which must necessarily involve large expense. Mr. Evans naturally does not see things in a dry light. He has the dramatic instinct, and impresses it on all he touches. What could be more dramatic than the photograph which he printed as the frontispiece of the first report of the Cretan Exploration Fund? The excavation of the Throne Room is in process; in the foreground four peasants are bending at their work; at the back are the plank ways and the baskets of dug-out earth, and all the apparatus of exploration; and there, in the centre of the picture, with its carved back scarcely three feet below the surface of the soil, is the throne of the ancient king, with the lines of its strange crocketing fresh and unchipped, unmoved from the day when first it was packed away in the earth three-and-thirty centuries ago.

Take, again, one of Mr. Evans's own descriptions in that first fascinating article in which he gave his results to the world. He had just discovered the fresco of the "Cupbearer." [1]

"The colours were almost as brilliant as when laid down over three thousand years before. For the first time the true portraiture of a man of this mysterious Mycenæan race rises before us. There was something very impressive in this vision of brilliant youth and of male beauty, recalled after so long an interval to our upper air from what had been till yesterday a forgotten world. Even our untutored Cretan workmen felt the spell and fascination.

"They, indeed, regarded the discovery of such a painting in the bosom of the earth as nothing less than miraculous, and saw in it the 'icon' of a saint! The removal of the fresco required a delicate and laborious process of under-plastering, which necessitated its being watched at night; and old Manolis, one of the most

[1] *M.R.* March 1901, fig. 6, p. 124. It is reproduced on the cover of the present book.

trustworthy of our gang, was told off for the purpose. Somehow or other he fell asleep, but the wrathful saint appeared to him in a dream. Waking with a start he was conscious of a mysterious presence; the animals round began to low and neigh, and there were visions about; '*φαντάζει*,' he said, in summing up his experiences next morning, 'The whole place spooks!' "

The finds of that first season's work were indeed marvellous. Besides the Throne [1] and the Cupbearer, there were the long corridors with their rows and rows of huge Aladdin's jars,[2] twenty in a single store-room, many of them still standing in position and intact, as when once they held the oil or wine of King Minos. On the walls were frescoes of "his minions and his dames," in garden or in balcony "viewing the games"; the men close-shaven and with flowing hair, the women with puffed sleeves and flounced skirts, *frisées et décolletées*, altogether ladies of fashion and the Court, of whom the French savant might well exclaim, "Mais ce sont des Parisiennes!" [3]

In contrast to these miniatures, in which the men's figures are sketched in thin dark lines on rough patches of reddish brown for flesh, the women's figures on a similar ground of white, there were wall paintings on a larger scale. There were men bearing vases in procession, tribute perhaps to Minos from the islands of the Ægean, just as we see Crete itself bringing tribute to Egypt on the walls of the XVIIIth Dynasty tombs of Senmut and Rekhmara; [4] and, in another mood, there had been painted by an earlier artist a nature scene of singular delicacy—a boy picking the white crocuses, with which

[1] *M.R.* March 1901, fig. 5, p. 123; *B.S.A.* vi. fig. 8, p. 37.

[2] *M.R.* March 1901, fig. 2, p. 118, fig. 3, p. 120; *B.S.A.* vi. figs. 4 and 5, pp. 22, 23.

[3] *B.S.A.* vi. pp. 46–8; *M.R.* March 1901, p. 125; *J.H.S.* xxi Plate V. gives part of the design.

[4] *B.S.A.* vi. p. 13. See below, p. 93.

the Cretan meadows are still bright in spring, and placing them in a vase.[1]

All this was found during the early months of 1900. Above all, the great hoard of clay tablets in the unknown script [2] gave a sensational promise of revelations to come. For beauty and picturesqueness and sheer thrill these discoveries remain unmatched by those of any subsequent year. None the less, no one, not even Mr. Evans himself, ever expected that so much was to follow. In the first report he talked of the work as "barely half completed"; but, in fact, it has gone on for five more years, and there is still much to be done. Only in the last year of excavation the paved way leading from the Theatral Area has been found to connect the Palace with a "Little Palace" farther west, whose fine gypsum walling runs at a considerable depth of earth straight into the hillside opposite.[3] The excavation of this important building has only just been begun, and may lead to far-reaching results when Mr. Evans returns to it in future years; while around it, facing towards the east, like the domestic quarters of the Palace, may well be the long-sought-for royal Tombs; and above it traces of an early Doric Temple suggest to us the tenacity of religious tradition and the chance of lighting upon some central Minoan sanctuary.

The great Palace itself, as now excavated, is a vast complex of chambers, courts, and corridors, bewildering to the lay mind as laid out in the plans prepared by Mr. Evans's architects, and hard to find one's way through even on the spot.

The dominating feature in the situation is the great central court, a paved area 190 feet long by 90 feet wide, with corridors, halls, and chambers grouped around it, so that the whole forms a rough square that is about

[1] *B.S.A.* vi. p. 45.

[2] *Ibid.* pp. 17–9, 55–63, Plates I. and II.; *M.R.* March 1901, fig. 8, p. 128.

[3] *B.S.A.* xi. pp. 2–16.

400 feet[1] each way. Mr. Evans believes that the Palace was definitely conceived as a symmetrical square, with four main avenues approaching it at right angles, and compares it to a Roman camp or the plan of Thurii as built by Hippocrates.[2] Owing to the many subsequent remodellings of the original plan, and the fact that the upper stories only partially remain, it is difficult to estimate how far we can press this suggestion. The rooms themselves, at any rate, are more remarkable for the irregularity of their grouping than for anything else, and seem to be a development on a large scale of the rambling many-roomed houses of the people that we find in contemporary Crete, as at Palaikastro.[3]

While the Central Court was the focus of the inner life of the Palace, there was another court on the west that formed the meeting-ground between palace and city. Due north of this again, at the extreme north-west corner of the Palace, is the Theatral Area, a paved space, about 40 feet by 30, backed on two sides by tiers of steps. These steps, which are adjacent, and at right angles to each other, cannot have ever led into a building. They must have supplied standing room for rows of spectators, and the area between them must have been meant for some kind of show or sport. The tiers themselves, one of which is still eighteen steps high, a platform on which the most distinguished guests may have had seats, and a central bastion between the two tiers that may have acted as a royal box, could have between them accommodated from four to five hundred people.[4]

What went on before them we can only conjecture. For the favourite Minoan sport of bull-baiting there was no room. That boxing played almost as important a

[1] The Plan given in this book (Plate IV.) does not quite contain all this area.

[2] *B.S.A.* vii. pp. 99, 100; *J.B.A.* x. 1902, p. 105.

[3] *E.g.* House B. R. C. Bosanquet in *B.S.A.* viii. fig. 23, p. 310. See below, p. 181.

[4] *Ibid.* ix. fig. 69, p. 105.

part in the Palace life we have evidence from the figures of boxers on the clay mould of a seal,[1] and the exciting prize fights carved on the steatite vase from Hagia Triada.[2] Nor can we shut out the possibility that ceremonial dancing may have formed part of the programme of this earliest type of theatre. "The twinkling of the dancers' feet" comes to us in the *Odyssey* as a memory from that palace of Alkinoos, whose wonders recall to us so much that we have found in Crete;[3] while the *Iliad* tells us how the Fire-god worked upon the shield of Achilles a Choros, or dancing-ground, "such as once in broad Knossos Dædalus wrought for fair-haired Ariadne."[4]

From the theatre a paved way led west about 300 yards to the "Little Palace" already mentioned. To the north it was half a mile to the cemetery of Zafer Papoura, which lies on the slopes of the protecting chain of hills that hide the low knoll of Knossos from the sea. It was these hills that made its first Stone Age citizens settle at Knossos, as the nearest point up the Kairatos river[5] that was safe from the eye of the wandering pirate.

For Knossos was lived in from Stone Age days, and the hill itself, like the apex of the mound of Hissarlik, was largely composed of the remains of successive strata of early habitations. At Hissarlik, the builders of what is called the second city of Troy, which is roughly contemporary with what we shall later describe as the early Minoan periods,[6] laid their foundations direct upon the Neolithic mound; but the sixth or "Homeric" city, that corresponds in date to the latest periods of the Knossian palace, needed a larger circuit for its walls, and was built altogether outside the original central cone. This is the reason why Dr. Schliemann never discovered these finer walls at all till within a few months before his death,

[1] *B.S.A.* ix. fig. 35, p. 56. See also below, p. 34.
[2] See p. 34 and Plate I. A.
[3] *Od.* viii. 248–65.
[4] *Iliad*, xviii. 590–2.
[5] The modern Katzabás.
[6] But see below, pp. 50, 200

but dug straight below the Roman foundations on the top of the cone, and assumed that the second city, which was the top pre-classical stratum that he found beneath them, was the Homeric Troy.[1] At Knossos, however, the cone of the Neolithic strata was planed away early in the history of the Palace, and the level plateau that was thus formed was large enough for the Central Court and the whole western wing.

East of the Central Court, however, the ground sloped down towards the river, which may have run farther west and closer to the hill than now, so that it flanked the Palace on its eastern side and had its "water-gate."[2] Here it was that those great unknown architects found scope for their skill in engineering. A scheme of internal staircases and upper stories enabled the rooms built upon this eastern slope to communicate with the Central Court on the crown of the hill.[3]

Upper stories indeed were not confined to this part of the site. The explanation of the fact that mere store-rooms, like the Western Magazines, occupy the extensive and important area to the west of the Throne Room, is, without a doubt, that they were only the basements of splendid upper halls that commanded the Western Court.[4] These upper walls seem mainly to have been formed, not of sun- or fire-baked mud bricks, as at Gournia or Palaikastro,[5] but of clay or rubble, coated with plaster or faced with gypsum slabs. There are indeed masses of red calcined earth at certain points, which must be the remains of brickwork, but bricks do not seem to have been found intact, whereas in Eastern Crete they have survived in large numbers undamaged, and seem to have

[1] See Bosanquet's summary in *B.S.A.* i. pp. 101–9, and Dörpfeld, *T.I.* vol. ii. Plate III. [2] *J.B.A.* x. 1902, pp. 102, 105.

[3] See an excellent view, looking due west, in *ibid.* p. 97.

[4] *Ibid.* p. 99.

[5] Bosanquet in *B.S.A.* viii. p. 315, etc.; Miss Boyd in *A.S.I.* 1904, pp. 561–70.

been almost as durable as stone. The conflagration of the Palace cannot altogether account for the difference, and it is probable that the invariable practice of plaster or gypsum facing meant that brickwork, even where it was used at Knossos, was not made so carefully as for city houses.[1] To the fact, however, that at Knossos the upper walls were not durable, but fell in and filled up the ground-floor level, we owe not a little that the wall decoration of the ground floor has been so well preserved; while on the eastern slope, where the stories were piled up highest, the superstructure happened in some cases to fall in such a way that it actually propped up the stone staircases and upper flooring, and kept them in position.

Thus it is that in what Mr. Evans calls the domestic quarter of the Palace, by the Queen's Megaron and the Court of the Distaffs, it has been possible to replace the rubble and brickwork débris by pillars and girders, and keep the upper flooring still in position. We can sit on the Stone Bench in the room that bears its name, immediately above where we had stood a minute before in the Room of the Plaster Couch.[2] Here too a great staircase, five flights high, led from the Hall of the Colonnades up to the Central Court, and of its fifty-two massive stone steps thirty-eight are still preserved. With a height of $4\frac{1}{2}$ and a depth of 18 inches, these steps allowed an easy and ample tread, while their width from wall to wall was, in the lower flights, as much as 6 feet.[3]

Advantage was taken, too, of the steep gradient to develop an elaborate drainage system in the private living rooms that lay on this eastern slope, with an

[1] In *J.B.A.* x. 1902, p. 133, Hogarth argues that no bricks at all were used at Knossos. This, however, must be modified in the light of Evans's statements in *B.S.A.* vii. p. 110, xi. p. 23.

[2] *B.S.A.* viii. figs. 29, 30, 44, pp. 56, 57, 79.

[3] The Quadruple Staircase of *B.S.A.* vii. figs. 32, 33, 36, pp. 106, 111, 116, viii. figs. 1, 23, pp. 2, 47, xi. fig. 12, p. 24. For the traces of the Fifth Flight, see *ibid.* xi. pp. 25, 26. For the measurements, see *ibid.* vii. p. 104.

arrangement of lavatories, sinks, and manholes that is staggeringly modern and "all' Inglese," as Dr. Halbherr gracefully calls it.[1] The main drain, which had its sides coated with cement, was over 3 feet high, and nearly 2 feet broad, so that a man could easily move along it; and the smaller stone shafts that discharged into it are still in position.[2] Farther north we have preserved to us some of the terracotta pipes that served for connections. Each of them was about 2½ feet long, with a diameter that was about 6 inches at the broad end, and narrowed to less than 4 inches at the mouth, where it fitted into the broad end of the next pipe. Jamming was carefully prevented by a stop-ridge that ran round the outside of each narrow end a few inches from the mouth, while the inside of the butt, or broader end, was provided with a raised collar that enabled it to bear the pressure of the next pipe's stop-ridge, and gave an extra hold for the cement that bound the two pipes together.[3]

Still lower down the slope, on a staircase by the Eastern Bastion,[4] there is an elaborate piece of hydraulic science for checking the flow of water. A stone runnel is made to descend the stairs in a series of parabolic curves which would subject the water to friction, and thus reduce its velocity and the consequent danger of a flood on the pavement below.

The idea of drainage was not new to the world. Terracotta pipes, though not so scientifically constructed, were found by Hilprecht in what he terms the pre-Sargonic stratum at Nippur in Mesopotamia; the larger ones, 2¾ feet in diameter, serving as vertical shafts, the smaller, from 6 to 8 inches in diameter, lying horizontally.[5] Apart from this, however, we can find no parallel for the drainage and sanitation of Knossos in classical or

[1] *M.I.L.* xxi. 5, 1905, p. 244.
[2] *B.S.A.* viii. figs. 46–8, pp. 81–5.
[3] *Ibid.* fig. 7, p. 13.
[4] *Ibid.* p. 111.
[5] *E.B.L.* p. 401.

mediæval days, but have to take the leap direct into our own times.

The detached building that Mr. Evans calls the Royal Villa, lying about 130 yards due east of the northern entrance, carries us almost as far ahead in history, though by a more gradual process. It was long ago suggested that the Roman Basilica, which formed the earliest type of Christian church, was derived both in structure and in name from the "Stoa Basilike" or King's Colonnade at Athens. This was the place where the King Archon, the particular member of the board of nine annual magistrates who inherited the sacred and judicial functions of the old kings, tried cases of impiety. It had further seemed possible that the building as well as the title was a survival from some earlier stage, when a king was a king in more than name.[1] What we have found at Knossos seems curiously to confirm this suggested chain of inheritance.

At one end of a pillared hall, about 37 feet long by 15 wide, there is a narrow raised daïs, separated from the rest of the hall by stone balustrades, with an opening between them in which three steps give access to the centre of the daïs. At this centre point, immediately in front of the steps, a square niche is set back in the wall, and in this niche are the remains of a gypsum throne. The throne is broken beyond repairing, but on the second step a tall lamp of lilac gypsum still stands intact in position. We seem to have here, as Mr. Evans suggests, a pillar hall with a raised "Tribunal" or daïs bounded by "Cancelli" or balustrades, and with an "Exedra" or seated central niche which was the place of honour. Even the elements of a triple longitudinal division are indicated by the two rows of columns that run down the Hall. Is the Priest-King of Knossos,[2] who here gave his judgments, a direct ancestor of Prætor and Bishop

[1] See Frazer, *Pausanias*, vol. ii. p. 58, for a reserved statement of these views.

[2] *B.S.A.* ix. p. 38.

seated in the Apse within the Chancel, speaking to the people that stood below in Nave and Aisles ? [1]

In all this description one point must have struck the reader: not a word has been said about fortifications. This peculiarity—for indeed there neither are nor were any fortifications to describe—may seem strange at first sight to those who are familiar with the mighty walls of Tiryns and of Mycenæ. Not only were those cities fortified, but their architects based their whole system on the strategical possibilities of the site, and closely followed its defensible contours.[2] The architects of Knossos were untrammelled by any such considerations, and saw in a rise of ground nothing but a good excuse for the piling up of stately buildings.

The reason for the difference is not far to seek. Paris is fortified, London is not. Nor does the analogy of London stop with the fact that it is on an island. The Empire of Knossos rested on Sea Power, on the ships that were beached a few miles away in the broad shallow harbour on which issued the Kairatos.

Of all the traditions that gather round Minoan Crete, none is more persistent than that which represents its greatness as depending on a Thalassocracy. It is not merely the general statements by Herodotus [3] and Thucydides [4] that Minos was master of the islands, or the legend of the human tribute that Athens sent for the Minotaur in the days of Theseus and Ariadne.[5] Throughout the Ægean we see traces of the Minoan Empire in one of the most permanent of all traditions, the survival of a place name; the word Minoa, wherever it occurs, must mark a fortress or trading station of the great king,[6] as surely as the Alexandrias or Antiochs or Cæsareas of

[1] *B.S.A.* ix. fig. 89, p. 145, and Plate I.
[2] *J.B.A.* x. 1902, p. 104.
[3] iii. 122.
[4] i. 4 and 8.
[5] Plutarch, *Theseus*.
[6] Does Farnell (*C.G.S.* iv. 46) seriously connect the Mĭnўae with Mĭnōs ?

later days. The list of such Minoas, as collected by Professor Fick of Göttingen in his book of pre-Hellenic place names,[1] is truly a formidable one. The two of them that we find in Crete[2] are the least convincing examples of any, as they might be later foundations that chose an obviously appropriate name. This would not apply to the Minoas in the islands of Siphnos and Amorgos, nor to Minoa as the old name for Paros,[3] nor to the island off Megara. This Minoa kept its old name to the end, and was assuredly the Cretan base of operations for the control of Central Greece, as it was later for the Athenians, in their attack on Megara in the Peloponnesian War.[4]

The tradition, too, that gives the name Minoa to Gaza on the coast of Palestine, and finds it even in Arabia,[5] is not in itself improbable, now we know the close relations that existed between Crete and the South and East. Further excavation in North Palestine may confirm Mr. Evans's conjecture that the bronze horned sword and painted pottery just found in the cemetery at Gaza points, not only to such intercourse, but to an actual settlement from Crete in the transitional Early Iron Age.[6] The Philistine giants who fought against the Children of Israel[7] might be thought of as cousins to the Boxers on the Hagia Triada vase, were we warranted in believing that they were really as long-limbed as they look.[8]

A similar body of evidence, derived both from tradition and from excavation, connects Minos with the West and Sicily. It has been hitherto assumed that the name Minoa, which belonged to the town that was afterwards

[1] *V.O.* 1905, p. 27.

[2] Strabo, p. 475; Ptolemy, iii. 17, 5 and 7.

[3] Steph. Byz. ad voc. p. 454, Meineke.

[4] Thuc. iii. 51, iv. 67. [5] Steph. Byz. ad voc.

[6] *P.T.* p. 107; *B.S.A.* ix. p. 89. Cp. *J.H.S.* xiv. pp. 368–72, xxi. p. 131.

[7] 1 Chron. xx.; 2 Sam. xxi. But see Ridgeway, *E.A.G.* i. 1901, pp. 618–20. [8] Plate I. A. See pp. 173–4

called Heraclea,[1] was given to it, not from any original settlement from Crete, but because the Dorians of the neighbouring Selinus brought the name with them from their mother country Megara. Be this as it may, the Minoan swords and pottery found by Dr. Orsi in Sicilian tombs, and the resemblance between the cult of Aphrodite of Eryx and that of the Dove Goddess at Knossos, point to an early and close connection.[2] There may be something after all in the story that comes to us in Herodotus [3] and Diodorus,[4] of that first great "Sicilian Expedition" on which Minos went in search of his artist Dædalus, and found in it his ruin, as did his brother Thalassocrats of Athens after him.

We may push the analogy further, and see in a Minoa in Corcyra [5] a proof that Minos, as well as Athens, found that island useful for the coasting voyage to Sicily. There was a Minoa, too, in South Laconia, the steep detached Gibraltar Rock of Monemvasia,[6] from which Villehardouin and the Venetians shipped "Malmsey" or "Malvoisie" wine to Western Europe. As one approaches it on the coasting steamer from Pylos, the resemblance between the two places is impressive. This was surely one of the "deserted headlands" that Eurymedon was thinking of when he sneered at Demosthenes's plan of fortifying Pylos.[7] There were no discontented Helots in Minos's day to turn the scale for Pylos. How far the Empire of Crete began, like that of Athens, as an "Ægean League," [8] for

[1] Hdt. v. 46.

[2] *P.T.* p. 109; *B.S.A.* ix. pp. 87, 89, 93. This does not commit us to the view that Minoan influence accounts for all the resemblances between the culture of the Ægean and that of Dr. Orsi's "Sikels." It is not yet clear how much is due to the parallel development of a kindred civilisation. See below, Chap. XI.

[3] vii. 170.

[4] iv. 76–9.

[5] C. & B. iii. 1, 1899, No. 3196; Thuc. i. 44.

[6] *Paus.* iii. 23, 11; Frazer, iii. p. 389.

[7] Thuc. iv. 3.

[8] As suggested by D. Mackenzie in *Phylakopi*, pp. 262–3, 271–2. See below, pp. 63, 85, 149, 179.

mutual protection and advantage, we cannot tell. It is possible that Melos, whose free development of local art, side by side with that of Crete, seems to Dr. Mackenzie to imply some amount of autonomy, was in a specially intimate and favoured position. That there was a dark and oppressive side to the Empire is shown without a doubt by the story of the Minotaur and its human tribute.

We see the impression that the perils of these unknown seas made on Minoan art in a clay seal impression that comes from Knossos. A sea monster, with head and jaws like a dog's, is rising from the waves and attacking a boatman who stands defending himself in his skiff.[1] In an hitherto unintelligible wall painting from the Palace of Mycenæ we can now see a similar monster, with a huge eye, opening its red jaws against the high curved beak of a ship.[2] Something like the Scylla of the *Odyssey*[3] is thus carried back to early times, and may already, as Mr. Evans suggests, have been localised in the Straits of Messina, opposite the Charybdis whirlpool. This is the black side of the sense of "the magic and the mystery of the sea" that finds a lighter expression in the octopus and sea-shell designs of the vases, and the flying fish on porcelain and frescoes.[4]

A more important record of the Minoan navy is a seal impression, also from Knossos, in which a powerful horse is being carried on a one-masted ship, whose rowers sit beneath an awning.[5] We have here perhaps the first importation from Libya into Europe of the Thoroughbred Horse.[6]

The organisation of such an empire, and the commerce

[1] *B.S.A.* ix. fig. 36, p. 58.

[2] F. Studniczka in *Ath. Mitt.* 1906, xxxi. fig. 2.

[3] xii. 85 *et seq.* Our monster is not many-headed.

[4] Bosanquet in *J.H.S.* xxiv. pp. 321, 322. See below, pp. 20, 84.

[5] *B.S.A.* xi. fig. 7, p. 13. For a good collection of representations of Ægean ships in art, see R. Dussaud in *R.E. Anth.*, 1906, figs. 51–4, pp. 127–9.

[6] Ridgeway, *T.H.* 1905.

that it brought with it, must have meant a complexity of exchange. Professor Ridgeway had already argued from certain gold rings and spirals found in the Shaft graves at Mycenæ, that a regular standard of weights was in use in the Ægean at the time, based on what is called the light Babylonian shekel of 130 grains.[1] Mr. Evans has now followed up this discovery in a brilliant paper [2] which shows that the Minoan age had not only an elaborate system of weights, but the first beginnings of a coinage. Of the weights the most remarkable is a splendid piece of purple gypsum,[3] weighing a light Babylonian talent, and decorated with the tentacles of an octopus, that served, like the type upon a coin, to render it difficult without detection to tamper with the weight. Ox-heads of bronze stuffed with lead are also found as weights,[4] and large amounts of gold seem to have been beaten out into the same shape and accepted as representing a fixed value. We see such gold ox-heads figured both in the inventories on the clay tablets at Knossos and on the Tomb of Rekhmara, as part of the tribute brought by the Keftians, the men of the isles in the midst of the sea, to the Egypt of the early fifteenth century.[5]

The transition from a weight to a medium of currency is definitely made in the ingots of bronze, nineteen of which were found together at Hagia Triada, in a walled-up basement chamber.[6] With slight variation, these ingots represent the same light Babylonian talent, in common use in Egypt at the time, that we have already found in the octopus weight. They are found, like

[1] *J.H.S.* x. 1889, pp. 90–7.

[2] *Cor. Num.* 1906, pp. 336–67.

[3] *Ibid.* fig. 1, p. 342 = *B.S.A.* vii. fig. 12, p. 42. See below, p. 91.

[4] *Cor. Num.* fig. 9, p. 353.

[5] *Cor. Num.* figs. 8, 9, p. 353. See below, p. 94. The Rekhmara Paintings are nearer 1450 B.C. than 1550, the date which Mr. Evans gives, relying unfortunately on H. R. Hall in *B.S.A.* viii. p. 164.

[6] *Cor. Num.* fig. 12, p. 357.

the ox-heads, both on the Knossos inventories and as tribute on the Rekhmara Tomb. On one of the clay tablets[1] sixty of such ingots are followed by fifty-two and a half of another unit, represented by a pair of scales or balance, the Greek τάλαντον. We have here, as Mr. Evans thinks, an equation in which 60 ingots are equal to 52½ "talents"; for the inference from the fact that the Greek word means a balance is too tempting to be missed. Or possibly we have a compound sum,[2] in which two units of the same metal, the ingot and the talent, stand like pounds and shillings in the relation of whole and part; so many talents, sixty, say, or a hundred, or some number bigger than fifty-two and a half, going to make up an ingot. This, if true, would well fit in with the fact that the earliest Greek talent, as we find it in Homer, was not the big sum that the Athenian allies paid as tribute, but only of the value of an ox, the "daric" or "sovereign" of the time. On Mr. Evans's view the point of the equation is that a gold talent, probably of an Egyptian standard, is brought into relation with the ingot standard that is, so far as we have found it, always of bronze.

Apart, however, from these inventory figures, there can now be classed together a whole series of bits of gold and silver, that must have been in actual daily currency as fractions of this gold talent, or of one of the other standards in use at the time in Egypt and the East. There are dumps or drops of gold and silver, and also flat slicings, cut with a chisel off a bar of gold, a primitive process from which our own "skilling" or "shilling" gets its name.[3] One of these small blobs of silver,[4] weighing 56·4 grains, and coming without doubt from a Late Minoan deposit

[1] *Cor. Num.* fig. 14, p. 361.

[2] As my colleague, Mr. Percy N. Ure, has suggested to me.

[3] *Cor. Num.* figs. 10, 16, pp. 354, 365.

[4] For the possibility of this coming from Laurium, see below, p. 118.

at Knossos, is marked with what is either a broad H or a ⊦, the first of which is found as a mason's mark, and the second as a sign in the linear script.[1]

We have here what is practically a piece of coined money, a dump of metal deliberately dropped while in a molten state on to a marked surface. The earliest coins of Greece and Asia Minor, many centuries later, were after all but similar molten dumps; but while their makers, if we follow Mr. Evans's view,[2] only roughened the surface on which a drop fell, and stamped it on the top or "obverse" side, the Minoan mint began its marking on the lower side, and anticipated the "reverse type" that has through all later history replaced the roughened surface of the first Greek coins. On the rival theory,[3] not mentioned by Mr. Evans, the die was in the earliest Greek period on the surface upon which the drop fell, so that the "obverse" of a coin was on its lower and not its upper side. The tradition is on this view continuous and exact, and for this very reason our Minoan dump will probably be claimed in its support.

Such was the Empire of Knossos, and so it is that in the great state entrances on the south and west we find not a trace of even the smallest attempt to fortify; the roads led straight into the open country. On the north side alone, at a point where the main road from the city on the north-west joins that which leads from the harbour, there are remains of a tower or guard-house with a bastion facing it.[4] It is an attempt to cope, not with a serious attack by blockade or by storming, but only with a surprise by a party of marauders who might have eluded the vigilance of the coastguards; it is a true exception that proves the rule.

[1] *Cor. Num.* fig. 15, p. 363.

[2] *Ibid.* p. 366.

[3] G. Macdonald, *C.T.* 1905, pp. 4, 5; G. F. Hill, *Handbook*, 1899, p. 148.

[4] *B.S.A.* vi. p. 49, vii. Plate II., viii. fig. 2, p. 5.

Once, then, that Sea Power was lost, and the invaders got a footing on the island, the end was sudden and overwhelming. Everywhere there are signs of a great conflagration. The blazing of the oil in the store jars of the western magazines is probably the reason for the preservation of the masses of clay tablets in this part of the Palace. These perishable bits of sun-baked clay, once released from their broken or burnt coffers of wood, clay, or gypsum, would never have survived the dampness of the soil if they had not been charred by an unusually thorough burning. Fire, that has destroyed so many libraries, has preserved Mr. Evans's at Knossos.[1] The invaders not only burnt but plundered. There is hardly a trace of metal left in the Palace at Knossos. In one corner only, on the north-west, a friendly floor level seems to have sunk just before the plunderers entered it, and hidden from their view five splendid bronze vessels. They are all that remain to us, with their delicate designs of ivy spray and lily chain, to tell us what the gold and silver work was like that was spoiled from Knossos.[2]

The invaders came and went, and it seems to have been men of the old stock who used part of the Palace site for their humbler dwellings in the days that followed the sack. Then a silence seems to fall upon the place. The ghostly figures on the walls of the long corridors frightened the rude Northern conquerors as they frightened Manolis; and a religious sanctity surrounded the dwellings of the old Priest-Kings. Over a great part of the site there was no building of house, or passing of ploughshare, or planting of tree, for three thousand years.

It is this that accounts for the enormous mass of objects of art that have been found within what is, after all, a small area. There was a diligent search for valuables, but the Northerners' conception as to what was worth looting was fortunately a limited one. They had not

[1] *B.S.A.* vi. pp. 19, 56, vii. pp. 83, 101.

[2] *Ibid.* ix. figs. 76–83, pp. 122–8, vi. p. 68.

yet progressed beyond the level of the Reuter's Telegram which told us last year that in the fire at Seville "the archives were totally destroyed, but the cash and the valuables were saved." [1] After the sack there was no disturbing element but time, and we must be grateful to time for the gentle way in which it has dealt with the art of Knossos.

The remains of the frescoes are in themselves considerable. There is the bust of a girl with dark curly hair and bright red lips, whose high, but transparent, bodice is looped up at the shoulder with a bunch of coloured ribbons; [2] and another figure of a girl dancing, in a yellow jacket bordered with blue and red, and a transparent chemisette.[3]

Plaster-work in low relief was also used in the scheme of wall decoration, and M. Gilliéron has now convincingly restored from fragments found south of the Central Court a life-size figure of one who must surely have been one of the Minoan kings themselves. On his head is a crown with a peacock plume, and his long flowing hair hangs down upon the fleur-de-lys chain that stretches, like some insignia, from shoulder to shoulder across his chest.[4] The artist has contrived, in spite of the low relief that he has allowed himself, to model the muscles of the fore and upper arm with extraordinary accuracy. In much higher relief, and nearer to sculpture than to painting, is the ruddy bull's head with the grey horn, for which Mr. Evans claims that "no figure of a bull, at once so powerful and so true, was produced by later classical art." [5]

[1] July 11, 1906.

[2] *B.S.A.* vii. fig. 17, p. 57. [3] *Ibid.* viii. fig. 28, p. 55.

[4] For the restored figure see the Candia and the Ashmolean Museums; for the torso as first discovered, *B.S.A.* vii. fig. 6, p. 17. It was not at first thought to belong to the same figure as the peacock plumes. See *ibid.* pp. 15, 16.

[5] *M.R.* March 1901, fig. 7, p. 126; *B.S.A.* vi. fig. 10, p. 52. It is unaccountably skied on the walls of the Candia Museum.

Apart from this wall decoration there is not only a profusion of vase types—a phenomenon one has been led to expect on all Mediterranean sites—but examples of other more distinctive kinds of artistic work. The royal Draught Board defies description, with its blaze of gold and silver, ivory and crystal, and the blue glass paste that we read of in Homer as "kuanos."[1] The fabric of porcelain introduces us to an art that was utterly unexpected in the Ægean world, with its delicate shades of green and white and brown and lilac. Some plaques formed part of a mosaic that covered human life with its varied scenes of peace and war. Here we have warriors, the Cretan erect, and his darker-skinned enemy prostrate and suppliant. Here is the Cretan wild goat or *Agrimi*, the vine, too, and the willow, and curving horizontal bands for running water;[2] there a whole city, with towers and three-storied houses,[3] in whose windows oiled red-tinted parchment seems to have anticipated the use of glass. A mass of burnt cypress found near suggests that all this was set in a wooden framework, and formed the decoration of some royal chest. As Mr. Evans remarks, we are nearer to the shield of Achilles than we have ever been before.

Other plaques again, as plausibly reconstructed from isolated fragments, give us nature scenes, such as flying fish in a border of rocks and sea-shells.[4] It was a subject that pleased the fancy of an island people, and inspired not only the fresco of the Queen's Megaron, but that other painting that carried the fame of Knossos over-seas, to the "Blue Room" at Phylakopi.[5]

[1] *B.S.A.* vii. fig. 25, p. 79. For the θριγκὸς κυάνοιο, see *Od.* vii. 87. See the Frieze at Tiryns in *S.S.* 1891, fig. 106, p. 116.

[2] *B.S.A.* viii. fig. 10, p. 21. [3] *Ibid.* figs. 8, 9, pp. 15–7.

[4] *Ibid.* ix. fig. 46, p. 69.

[5] *Ibid.* viii. pp. 58–9; *Phylakopi*, pp. 70–2, Plate III. See below, p. 179.

More perfect than all in design and technique is a relief of a goat suckling her young,[1] characterised, as it is, not only by naturalism, but also, as Mr. Evans claims, "by a certain ideal dignity and balance." The surface colour is here a pale green with dark sepia markings. Among porcelain vases one may specially note a two-handled bowl with cockle-shell reliefs, and a pale green vase with fern spray decoration, and rose leaves springing in relief from the top of the handle and spreading over part of the inner margin of the cup.[2]

The technique of the Minoan craftsman in ivory was no less perfect than in porcelain, though less widely represented in the excavations. In one case it has been possible to reconstitute the whole figure of a boy, about 11½ inches high. He is in the act of jumping, with head gracefully thrown back, and arms and legs outstretched. Not only are the muscles faithfully rendered, but even the veins on the back of the hand and the finger-nails;[3] while the hair is represented by curling bronze wire plated with gold. Such figures formed part of some ivory model of the Bull Ring, and are meant to suggest the toreadors who loom so large in the art and the traditions of Knossos. We can imagine the associations which such young toreadors would suggest, hung in the air by fine gold chains above the back of an ivory bull, when we look at a scene painted on one of the frescoes of the palace walls. A girl in "cowboy" costume seems just about to be tossed by a charging bull. Mr. Evans thinks that this time it has got her, and we may be sure that there were tragedies in the Bull Ring; but here there seems a chance, if she is clever, that she may balk it after all, and grip its horns and vault safely over its back. That is what the boy has done who is turning a somersault over it in front of her; while another girl

[1] *B.S.A.* ix. Plate III.

[2] *Ibid.* figs. 51, 53a, 53b, pp. 73, 74.

[3] *Ibid.* viii. fig. 39, p. 74, and Plates II. and III.

—we know them by their white skin—is holding out both hands to catch him in his fall.[1]

The closer, indeed, that one looks into the excavations at Knossos, the less wonder is there that they have needed six seasons' work. To understand them fully we must visit Candia—easy of access from Athens, even if we hit upon no special pilgrimage—and see in its now famous museum the care and skill with which frescoes and vases and porcelains and ivories have been pieced together and set and restored. We must walk out, too, the few miles that separate Knossos from the sea, and pass through the chain of hills that envelop it, and look for the conning tower on the crown of the knoll, from which Mr. Evans, with his *fidus Achates*, Dr. Duncan Mackenzie, by his side, takes his survey of his dominions.

We only then realise how extraordinarily well Mr. Evans does things. It is not only the luncheon he gives us under the olive-trees, with the red wine from Mount Ida, and the droning bagpipe tune of the peasants' mandolins, and the ring dance, reminiscent in its rhythmical bend of arm and clap of hand and knee of our own Highland reels, but tracing, as excavations tell us,[2] its own native Cretan pedigree back to the ritual of Minoan times. The absence of the "dry light" which we notice as readers and as guests, is even more noticeable in the way in which Mr. Evans treats his excavations. He is not content to leave them clean and well ordered, though the disgracefully untidy state in which the French have left Delos shows that even so much is not to be expected of all explorers. He has

[1] *B.S.A.* vii. p. 94, viii. p. 74. A copy of the Fresco is in the Ashmolean Museum. See also the figure turning a somersault over a bull's back on the clay seal impression, *ibid.* viii. fig. 43, p. 78.

[2] See *B.S.A.* x. 1903–4, p. 217, where R. M. Dawkins describes some figurines discovered by the British School at Palaikastro, where three votaries are dancing hand in hand round a snake goddess. See also Evans's remarks in *B.S.A.* ix. pp. 111–2.

made it his object not only to unearth and preserve, but wherever possible to restore and reproduce the original effect. He has in him something of the spirit of Viollet-le-Duc, though chastened by scientific method. The work of keeping in position staircases and supporting upper floor levels to a height of over 20 feet [1] has in itself been a huge one, and no expense has been spared to make it perfect; while even on the ground floor there has been need for taste and ingenuity in reproducing the shape and colour of Minoan columns to support the roof by which the Throne Room is protected from stress of weather.[2]

[1] *B.S.A.* xi. p. 26.

[2] *Ibid.* vii. p. 2.

CHAPTER II

THE PALACES OF PHÆSTOS AND HAGIA TRIADA, AND THE EXCAVATIONS IN EASTERN CRETE

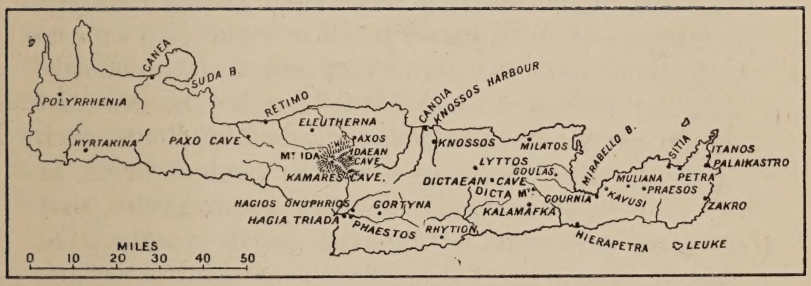
We have spoken above of a visit to the Candia Museum as necessary to a full understanding of the glories of Knossos. If, however, such a visit were made with the expectation of seeing Knossos, and nothing but Knossos, the visitor would receive a shock. Various as they are, Mr. Evans's finds fill barely half the room. Though no single site can claim to rival Knossos, their cumulative effect is almost as remarkable. It is not merely that isolated deposits have been found at many points, such as the interesting series of tombs in Eastern Crete, at Muliana, Milatos, Kavusi, and Erganos near Lyttos, that illustrate the transition from the Bronze to the Iron Age;[1] or the strange red and black mottled ware of the early house at Vasiliki near Gournia,[2] and the gems and high-spouted vases that come from Hagios Onuphrios farther south;[3] or the polychrome pottery that will henceforward, wherever found, record its first discovery by Mr. J. L. Myres,[4] in the Kamáres cave on the southern slopes of Mount Ida. The other more famous cave of Ida, the cave in the central peak that challenged the claims of Dicte to be the birthplace of Zeus, has been defeated in trial by excavation. In a grotto on the slopes of Dicte above the village of Psychro, Mr. D. G. Hogarth found a

[1] See pp. 101–2, 209–17.

[2] *T.D.A.P.* iii. Part I. pp. 213–21. See below, p. 49.

[3] *J.H.S.* xiv. p. 325. See below, pp. 52, 75.

[4] *P.S.A.* xv. 1895, pp. 351–6, Plates I.–IV. See below, p. 59.



SKETCH MAP OF CRETE

PLATE II

mass of votive offerings, knives and brooches and vases, and the double axes that loom so large in the cult of Minoan times.[1] It was this grotto, without doubt, that early Greek tradition, in the centuries that followed the sack of Knossos, fabled as the birth cave of Zeus, the holy ground that dimly symbolised the passing away of the old faith before the new. It was here that Mother Rhea fled to bear the King of Heaven that was to be, God made in the image of man; while Father Kronos and the world he ruled, confident that the new anthropomorphism was destroyed, clung to the stone child, the aniconic pillar worship that expressed itself in the Bethels of the Semites and the Pillar Rooms at Knossos.[2] It was here that Zeus, come to man's estate and the throne of Heaven, loved the daughter of man, Europa;[3] and here that their son Minos went up into the mountain, while his people waited below, and, like Moses, communed with God. Like Moses, too, he came down with the Commandments,[4] the Imperial Law that governed the Ægean, and followed men, so the legend ran, even to Hades below, where Minos judged among the dead.[5]

At Leuke, a little island off the south-east coast, we pass from the religion of the Minoan world to its commerce. The bank of crushed murex shell that Professor Bosanquet found here, and again at Palaikastro, in company with a whole mass of Kamáres pottery,[6] shows that the men of Sidon and Tyre were not the first to practise the dyeing of purple. Æschylus was more of an antiquarian than he knew when he made Clytemnestra play upon the

[1] *M.R.* Jan. 1901, pp. 49–62, with ten (unnumbered) Plates; *B.S.A.* vi. pp. 94–116, Plates VIII.–XI. figs. 27–50. See below, chap. viii.

[2] Hesiod, *Theog.* 459–91; Evans in *J.H.S.* xxi. pp. 99–204, figs. 1–70 and Plate V. See below, chaps. viii., ix.

[3] Lucian, *Dial. Mar.* xv. 326–7.

[4] Dion. Hal. *Ant. Rom.* ii. 61; Strabo, 476.

[5] *Od.* xi. 568–71.

[6] *B.S.A.* ix. pp. 276–7; *J.H.S.* xxiv. p. 321.

πορφυρόστρωτος πόρος, that grim red path that she would make Agamemnon walk ; [1] Knossos and Mycenæ knew well enough that

There is a sea—and who shall drain it dry ?

It was a trading station, too, that the Minoans founded somewhat late in their history in the sheltered bay of Zakro, on the eastern coast of Crete.[2] The five hundred clay seal impressions that Mr. Hogarth found in a single house there must have been made from one hundred and fifty different gems or rings, the designs covering almost the whole range of Cretan seal stones, from monsters such as Minotaurs and Eagle-Ladies to naturalistic bulls and lions, or cult scenes with shrines and worshippers.[3] The merchant to whom they belonged may have attached them to bales of goods, or to bills of lading for his foreign trade.[4] Even to-day Zakro is still the principal half-way house for sailing craft between the Ægean and the north coast of Africa.[5] Its gems, and the mass of vases, superfluous votive offerings perhaps from some neighbouring shrine, that were found heaped together in a pit or "lakkos," [6] were the most noteworthy finds of Zakro ; the houses of its well-to-do traders, which in other circumstances might have seemed evidence enough for the middle-class life of the Minoan age, have been outshone by the more extensive excavations at Gournia and Palaikastro.

At Gournia, in a sheltered bay on the northern coast, Miss H. A. Boyd [7] has unearthed a whole city, continuously inhabited during the greater part of the Minoan age,

[1] *Agam.* 910, 958.

[2] Hogarth in *B.S.A.* vii. pp. 121–49 ; Dawkins in *ibid.* xi. p. 274. Bosanquet, *ibid.* ix. p. 281.

[3] *J.H.S.* xxii. Plates VI.—X. figs. 1–33, pp. 76–93. See below, p. 127.

[4] Bosanquet in *J.H.S.* xxi. p. 339.

[5] *B.S.A.* vii. p. 123.

[6] *Ibid.* pp. 126–8. See below, p. 85.

[7] Now Mrs. C. H. Hawes.

but since that time so entirely deserted that many of the best objects of bronze and terracotta were found within less than 2 feet of the surface.[1] We see here the ground-plan of masses of houses, with their upper walls of fire-baked brick on a basis of stone, and traces of staircases and second stories; houses whose general effect must have been just that which we see on the porcelain mosaic from Knossos.[2] We can pass up to the palace on the hill through street after street of the houses of the people, treading the narrow five-foot roadway of flagged stones as it winds through them like the Sacred Way at Delphi or at Rome. In the centre of the town, too, approached by a well-worn road of its own, was a little shrine about 10 feet square; and on the floor of beaten earth a primitive terracotta idol of a goddess, with a snake entwined around her, and little doves and a three-legged altar, and vases decorated with the double axe and the horns of consecration familiar to Minoan cult.[3]

At Roussolakkos, the "red hollow" at Palaikastro, red from the mouldering of the Minoan brickwork, there has been excavated just another such city as at Gournia.[4] Apart from the important outlying sites, the Neolithic houses at Magasa, and the early ossuaries in the mountain glens, and the sanctuary from which came the Queen Elizabeth figurines at Petsofa,[5] the British School has unearthed a city of continuous houses, more than 400 feet long by 350 broad, whose many blocks or "insulæ" might seem almost to need the more elaborate grouping of the "regiones" of Pompeii.[6]

Above all, at Phæstos, in the centre of the southern coast, some ten miles from Gortyna, Dr. Halbherr and the Italian mission have excavated a Palace which from

[1] *C.R.A.C.* p. 226; *A.S.I.* 1904, pp. 561–70.
[2] See p. 20. [3] *A.S.I.* 1904, Plate II. fig. 1.
[4] *B.S.A.* viii., ix., x., xi.
[5] *Ibid.* xi. pp. 260–8, ix. pp. 344–50, 356–87. See below p. 53. [6] *Ibid.* ix. Plate VI., xi. Plate IX.

the architectural point of view is as magnificent as that of Knossos itself. In many respects indeed the two Palaces are strikingly alike: the central court with the living-rooms grouped round it, the long corridors and spacious store-rooms, the west court and the theatral area, the beautifully wrought walls of limestone and gypsum, the total absence of fortifications—all these are common to both.[1] Phæstos appears to have been a Palace pure and simple, and was naturally built on a slightly smaller scale than Knossos, which was the capital of an Empire and the centre of business and of government.[2] In its great State Entrance, however, or Propylæa, with its twelve steps still intact, 45 feet wide, Phæstos has the advantage.[3] So it has too in its striking natural position, on the lowest of three hills that, rising one above the other, like three great steps, command the fertile plain of the Messara. It is in the remains that were found in it that Phæstos falls short of its sister site. An interesting architectural point is raised by some stone carvings, with a vertical triple-grooved design.[4] So often is this design found that Mr. Fyfe, when discussing its occurrence on a miniature fresco at Knossos,[5] calls it the most distinctive architectural ornament of the age. There is every probability that we may see in it the prototype of the "Triglyphs" that alternate with Metopes on the entablature of the Doric Temple.[6] Apart from this, little was found of note, except some fine vases[7] and one graceful flower fresco.[8] Phæstos, it may be remarked, like Knossos, was inhabited from Neolithic days.

[1] *Mon. Ant.* xii. 1902, especially Plates III. and VI. and fig. 10, p. 36; and xiv. 1905, especially Plates XXIX. and XXXI. and fig. 44, p. 422.

[2] *J.B.A.* x. 1902, p. 104.

[3] *Mon. Ant.* xii. Plate IV., xiv. Plate XXX.; *B.S.A.* xi. Plate VI. See below, p. 79.

[4] *Mon. Ant.* xii. 1902, Plate VII. No. 1, and fig. 13, p. 47.

[5] *J.B.A.* x. 1902, Plate II.

[6] *Ibid* pp. 126, 127.

[7] *Mon. Ant.* xiv. 1905, Plate XXVIII.

[8] *Ibid.* figs. 28a, 28b, pp. 381, 382.

It was fortunate for the Italians that they were compensated for the inexplicable barrenness of Phæstos by the wonderful remains, both of early and mature Minoan art, that they found on the hill of Hagia Triada, two miles to the north-west. A round chamber tomb with a diameter of nearly 30 feet was found literally packed with skeletons, like a charnel-house ; two hundred were found in it alone, and fifty in some later chambers that adjoined it.[1] These were not the dead of a single battle, for among them were the bones of women and children ; it was rather the tomb of a tribe used for many years, or an hereditary family vault.[2] The incised and primitive painted pottery, the rude seals and idols and short copper dagger-blades that were found with the bodies, belong, as we shall see later,[3] to the second and third early Minoan periods that follow soon after the Neolithic age. It is interesting to notice, therefore, that the tomb must originally have been of the vaulted Tholos type that reached its highest expression in the beehive tombs of Mycenæ, the so-called " Treasury of Atreus," and the rest. The lower courses of this Hagia Triada Tholos, which still remain standing along with those of the narrow three-foot passage or " dromos " that formed its entrance, show that the circular form that we find in the mainland was in Crete also an early form of chamber tomb. Three others have been opened by Dr. Xanthoudides at Koumasa near Gortyna, while at Sitia he thinks he has found a trace of the circular hut of the living, the wigwam on which the Tholos tombs were modelled.[4] The Royal Tomb at Isopata,

[1] *M.I.L.* xxi. 5, p. 249, and Plates VIII., IX., figs. 18–20 ; *Rend.* xiv. 1905, pp. 392–7.

[2] So Halbherr, *op. cit.* Does, however, the promiscuity point to reinterment ? See Bosanquet and others in *B.S.A.* viii. 305, ix. 348, x. 229, xi. 292.

[3] See p. 49. For the chambers, see p. 52.

[4] See a short account in *Ath. Mitt.* xxxi. 1906, pp. 367–8. They will later be fully published in Ἐφ. Ἀρχ. See below, p. 169.

on the other hand, and the Zafer Papoura cemetery, show that in Crete the elaborate chamber tombs of the great palace periods, from Middle Minoan III. onward, had a ground plan that was not circular, but rectangular and almost square.[1] Whether these square tombs are a modification of an originally round type, or an independent development from the Neolithic rock-shelter, the vaulted roof is a point that they have in common with the Tholos tombs. The horizontal courses of the side walls are laid so that they project inwards one above the other, and finally meet at the top;[2] just as in the circular Treasury of Atreus the courses get gradually smaller in diameter, and are cut to give the appearance of a springing vault with an undisturbed flow of line from floor to apex. In neither, it may be noticed, have we the principle of the true arch, in which the stones are laid in wedges that converge towards a keystone.[3] The true arch had already been used in Mesopotamia, where there has been found, in the pre-Sargonic stratum at Nippur, an arched passage that is formed of radiating bricks and has a keystone of wedge-shaped joints of clay mortar.[4] In the Ægean area, except, oddly enough, in the out-of-the-way district of Acarnania,[5] it was avoided until Roman times, on the Hindoo principle, perhaps, that "an arch never sleeps."

The hill of Hagia Triada, however, was used for something more important than an ossuary. It lies above the river Electra, and overlooks the sea; three thousand

[1] *P.T.* pp. 3, 4, fig. 1, p. 5; Fyfe in *ibid.* p. 163, and Plate XCIV. See below, pp. 65, 168–9.

[2] *P.T.* fig. 145, p. 162.

[3] Perrot et Chipiez, vol. vi. Plate VII. p. 635; Frazer, *Pausanias*, vol. iii. fig. 23, p. 124.

[4] Hilprecht, *E.B.L.* p. 399. The passage was over the drain, mentioned on p. 9 of the present work.

[5] See the interesting article by B. Powell on the Arches of Œniadæ, etc., in *A.J.A.* 1904, figs. 3 and 7, pp. 149, 154. For other slight exceptions see Walters, *A.G.* 1906, p. 33.

years ago, before the river deposit enlarged the delta, the sea may almost have washed the foot of the hill.[1] It was here that the lords of Phæstos built a splendid country villa,[2] and the conflagration that overwhelmed it has preserved for us here, as at Knossos, all that the invaders did not think worth plundering.

The fresco on which a great brown cat is gathering itself together to spring upon a red pheasant [3] recalls a well-known dagger-blade from the fifth Shaft grave at Mycenæ, in which cat-like animals hunt wild ducks in a river marsh ; [4] but the fresco is, of course, on a larger scale, the cat being 12 inches, the bird 4 inches high. It is curiously similar in style and subject, though superior in vivacity, to the cat and bird fresco of an XVIIIth Dynasty tomb at Thebes.[5]

A painted sarcophagus gives us in greater detail than we have ever had before a scene of primitive worship.[6] On one side is a sacrificial procession, carrying offerings towards the figure of a youth. He stands in front of a richly decorated construction, that seems to be the door of a tomb, or of a chapel crowning it. He is completely wrapped in a mantle that covers even both his arms, and the air of immobility that is thus given to his figure suggests that we have here a representation of the dead man himself.[7] On the other long side of the sarcophagus is a bull bound by cords on a low altar, while his blood pours into a bucket below ; the ends of the cords are held by two white hands, those of a woman without doubt, though the rest of the figure has been destroyed ; above the animal a man with two long black

[1] Bosanquet in *J.H.S.* xxii. p. 388.

[2] *M.I.L.* xxi. 5, Plates I.–IV. ; *Rend.* xiv. 1905, figs. 2–4.

[3] *Mon. Ant.* xiii. 1903, Plate VIII. and pp. 57–8.

[4] *S.S.* fig. 270, p. 266.

[5] See p. 93.

[6] Paribeni in *Rend.* xii. 1903, pp. 343–8. It is unfortunately not yet published.

[7] Paribeni, *op. cit* ; Evans, *P.T.* p. 169.

hanging curls is playing on a double flute. On a third side is a two-wheeled chariot, drawn by a pair of horses, and one of the two white-fleshed "deep-bosomed" women that ride in it holds, like Nausicaa in the *Odyssey*,[1] the four red reins.

The religious dress of the men of Minoan times was much more complicated, it here appears,[2] than the embroidered loin-cloth that we find them wearing at war or the chase, or in the ordinary routine of daily life. One of the men on our sarcophagus, striking with a bow the many strings of a gold lyre, wears a long robe that reaches right down to the feet, strangely like that of the women of classical Greece, while from his shoulders flutters a veil or mantilla. The same veil is worn by a richly dressed woman who walks in procession with him, while on her hair there are red flowers.

No less remarkable than this sarcophagus are three vases of black steatite or soapstone, two of which, by the great kindness of Dr. Halbherr, are here reproduced for the first time in England. Admirable as they are from an artistic point of view in their present condition, they must have been still more magnificent when coated with gold-leaf. Mr. Evans's suggestion that this was originally the case, made on purely *a priori* grounds, has been confirmed by the discovery at Palaikastro[3] of a similar steatite vase with a particle of gold-leaf still adhering to it. The zone decoration that is characteristic of these vases must have been begun in bronze technique, the vessel being formed of metal bands riveted together. The tradition of this kind of bronze vessel built up of decorated zones, one above the other, found

[1] vi. 81–2.

[2] See also *B.S.A.* vii. p. 20. Hall (*O.C.G.* 1901, p. 278) makes a similar remark, justified, it may be noticed, by results, though at the time only based on "Late Mycenæan" vases from Cyprus.

[3] By Currelly, *J.H.S.* xxiv. p. 320.

its way to North Italy and the head of the Adriatic,[1] and passed thence through Central Europe to influence the zoned Celtic urns, such as have been found at Aylesford in our own county of Kent.[2] In Crete, however, the metal-workers were not content with bronze, but as their skill grew perfect, sought to express it in a more splendid metal. Solid gold was beaten up with a blunt instrument from behind into bold relief, and finished with a sharp chisel in front. The finest examples of this goldsmith's work, unequalled at any time except during the Italian Renaissance, were brought to light eighteen years ago in a beehive tomb at Vaphio in the Peloponnese;[3] but, although found on the mainland, these famous bull-trapping cups are now generally believed to have been an import from a Cretan workshop.

How common such solid gold work was we cannot tell. It tempted the cupidity of the Northerners, and was melted down for their ruder uses. It was an attempt to produce the effect of gold in a cheaper medium, or only, perhaps, an act of assertion on the part of the stone-carvers that they could do as well, that produced this gold-coated steatite. It has survived to us because the looter happily found out the fraud before he left the building, stripped off the gold-leaf, and threw the vases down with a spite so well moderated that we are able to reconstruct the fragments.

The tallest of the three vases (Plate I. A[4]), which would

[1] Zannoni, *S.C.B.* 1876, Plate XXXV. figs. 6, 7, and CXLIX. fig. 8 (= Montelius *C.P.I.* Plates CV. figs. 1, 2, and C. fig. 1), for Bologna; and Hoernes *U.K.* 1898, Plates XXXIII. and XXXV. figs. 2, 5, 6 for Lower Austria and the Tyrol.

[2] Evans in *Arch.* lii. 1890, p. 335. See also a summary of his Rhind Lecture on "The ancient Venetian Art Province, and its influence on the Celtic races," in *Scotsman*, December 14, 1895. It is still unfortunately unpublished.

[3] *S.S.* 1891, App. Plate III. See below, pp. 88, 136–7.

[4] First published by Halbherr in *Rend.* xiv. 1905, pp. 365–405,

indeed have been costly in solid gold, has its 18 inches of height decorated by designs placed one above the other in four separate zones. The second from the top shows two furious charging bulls, one of them tossing a man who hangs extended and helpless on its horns. The rest of the zone is badly preserved, but the Italian explorers consider that it represents a bull hunt, rather than a scene from the bull ring, such as we see on the frescoes at Knossos. The other three zones describe a kind of gladiatorial show. Boxers are here seen in every attitude, some triumphant with the left arm held out for guarding, and the right drawn back to strike, one (the figure in the top right corner of our illustration) gathering himself together for his spring, like Hector as he made ready to swoop on Achilles ; [1] others prostrate on the ground, with their feet kicking in the air. The helmets worn on two of the zones are of different types, and on the bottom zone the boxers are bareheaded, and may possibly be meant for youths, in contrast to the men above them; there are traces of some kind of boxing glove or cestus.

It is interesting to notice that boxers in a similar "stylised" attitude are to be seen on the fragments of a steatite pyxis found at Knossos in 1901,[2] and a clay seal impression also found there in 1903.[3] On the latter there is also behind the boxer a column with a rectangular capital, such as occurs in the designs just described. Pugilism was clearly one of the Minoan sports as well as bull-baiting.

A visit to the Bologna Museum, or a glance at Zannoni or Hoernes,[4] will show the connection between such a

fig. 1. See also Paribeni in *ibid.* xii. 1903, p. 331, and Halbherr in *M.I.L.* xxi. 5, 1905, pp. 240–1.

[1] *Il.* xxii. 308, οἴμησεν δὲ ἀλείς.

[2] *B.S.A.* vii. fig. 31, p. 95. [3] *Ibid.* ix. fig. 35, p. 56.

[4] *Op. cit.* above, p. 33. For the discovery of Late Minoan III. vases at the head of the Adriatic, see below, pp. 125, 157.

vase as this and the remarkable group of bronze vessels that come from North Italy and Lower Austria. Two of their distinguishing features are, first, their scheme of depicting various scenes from daily life in two, three, or four superimposed zones, and secondly, the prominent part played in these scenes by groups of contending boxers. It need scarcely be added that in the type of human figure which he represents and in the skill with which he depicts it the "Italo-Illyrian" artist is much coarser than the Minoan.

The relation of this Italo-Illyrian art to Etruscan is a question that deserves further attention.[1] Not only were the Etruscans famous for boxing,[2] but the paintings on the walls of the tombs of Clusium,[3] and Tarquinii,[4] show us boxers who in pose and type of figure remind us so forcibly of the Bologna and Tyrol jars that there can be no question of coincidence. They are represented, too, as fighting in the same way over a low stick or stool on which rests a helmet or a piece of embroidery. Whether or no this represents the prize,[5] it is clear that the stool itself serves to limit their advance, like the barrier that ran down the lists in the Tournaments of later mediæval times. Our "ring" points to a different set of rules, and so apparently does the column that marks the scene of Minoan boxing.

The second of the steatite vases (Plate I. B and C),[6]

[1] Dennis i. p. xxxvi. *n.* 8. Montelius, *op. cit.* One cannot judge from the summary whether Evans considered this in his Rhind Lecture. For the importance of the question, see below, p. 125.

[2] Livy, i. 35.

[3] The Monkey Tomb. Dennis, ii. p. 332.

[4] The Tomb of the Inscriptions. Dennis, i. p. 364. See also *ibid.* i. pp. 317, 378, 399; ii. pp. 324, 342.

[5] Dennis, ii. p. 332, thinks that what I have called embroidery is the clothes they have just taken off.

[6] First published by Savignoni in *Mon. Ant.* xiii. 1903, Plates I.–III. p. 85 *seq.* An excellent plaster copy of the vase can be obtained from the authorities of the Candia Museum for six francs.

midway in size between the other two, represents one single scene, and that with such masterly naturalism that it seems irony that we cannot agree as to what it means. A body of muscular-looking men in loin-cloths and flat caps are marching in some kind of triumphal procession. Leading them is an elderly man of importance, bareheaded, and with long flowing locks and a physiognomy as distinctive as those of the gold masks from the graves of Mycenæ, and curiously like one of them.[1] In the middle are four persons—one an Egyptian priest, if we may judge from the fact that he is without the narrow native Cretan waist, playing the musical metal rattle called a sistrum; the other three, perhaps women, shouting in chorus with open mouths. So much is clear. The difficulty comes when we try to interpret the curious garment worn by the elderly leader, and the still more curious implements carried by him and his followers. On one theory the scene represents a harvest feast; on the other a triumph after a naval victory. The former sees in the fringed scale-like object on the leader's back a ceremonial "cope" with the markings of fur or skin or wickerwork, the latter a coat of chain armour. The one theory regards the long three-pronged forks from the obvious point of view as agricultural instruments, and the short cross-bar lashed to them at a right angle just below the prongs as also serving some function in rick-making; the other sees in them a composite naval weapon, in which the cross-bar was used for grappling, and the fork as a bayonet.[2]

Whether the thanksgiving is one for success in peace

[1] *S.S.* 1891, fig. 224, p. 226.

[2] Such as the δορυδρέπανον mentioned in the *Laches*, or the Roman *falx muralis*. Savignoni, in *Mon. Ant.* xiii., compares also the trident of the retiarii and the ἔγχεα ἀμφίγυα, of *Iliad* xv. 711. The farmer's stick is, according to him, a κοντός or ξυστόν. See the battle by the ships in *Iliad*, xv. 384, 676–7, 730, 742. For the other view, see Bosanquet in *J.H.S.* xxii. p. 389.

or war, we can at least be sure that the procession is a religious one. The sistrum was never used for war music, but only for the purposes of religion,[1] and some gems that represent the tasselled garment that the leader wears show it in a distinctly religious connection. On a gem from Zakro [2] it is being carried by a man who does not wear the loin-cloth, but a baggy kind of knickerbockers like the Moslem trousers of to-day ; he is carrying it away from another man similarly clothed, whom he presumably has been disrobing ; between them is a sacred double axe. On a seal from Hagia Triada [3] are two figures in the same knickerbockers, but here we have the robing, and not the disrobing ; the one man has taken the cope from the other, and has put it over his head, but the fact that his arms do not come through show that it is not properly on, and his knickerbockers show beneath it ; he has his back turned to a pillared building that seems to represent one of the shrines we find on other gems and frescoes.[4] Two of the copes again are found on a sardonyx gem from the Heræum at Argos,[5] flanking a bull's head with the double axe above it. May we not see such a thing, too, in the "cuirass," [6] worn by the man on the gem from Knossos who is bending his body forward towards a seated Calf-Man monster ? The way that the cope stands out from

[1] In spite of Virgil, *Æn.* viii. 696. So R. Weil in *Rev. Arch.* 1904, p. 52.

[2] Hogarth in *J.H.S.* xxii. 1902, Plate VI. No. 6 = fig. 5, p. 78. Evans in *B.S.A.* vii. p. 54, thought it was a woman.

[3] Halbherr in *Mon. Ant.* xiii. 1903, fig. 35, p. 41. See Savignoni, *ibid.* p. 114.

[4] E.g. *J.H.S.* xxi. fig. 48, p. 170, fig. 53, p. 177.

[5] Furtwängler in *A.G.* Plate II. No. 42. He wrongly took the copes to be "fischreusen" or fixed nets for catching fish.

[6] So Evans calls it. It is a clay seal impression, *B.S.A.* vii. fig. 7a, p. 18. I owe the suggestion to my pupil, Mr. J. H. Sanders. See below, pp. 128, 207.

the body on the Hagia Triada gem points to it being of stiff material, such as wickerwork.[1]

The smallest of the vases, unhappily not yet published,[2] is only 4 inches high. It represents a small group of warriors, some of them in line of battle, with only head and feet showing above and below a line of tall, tower-like shields locked close together. The ox-tail is still on them, which proves that, whether or no they were strengthened with metal, their foundation was of hide. The two principal figures stand apart, one holding a lance or staff, the other a long sword. Both alike are clad in the usual embroidered loin-cloth and gartered buskins. The staff-bearer is considerably the taller and stouter limbed, and is bareheaded; he has long flowing hair, and more chains on his neck and arms than the sword-bearer, who wears his hair short or closely gathered up under his great plumed helmet. Is the first the King[3] giving orders to his captain or his son going out to battle? Or is the greater dignity with which his size seems to invest him only due to the desire of the artist to leave no blank space above his figures? In the case of the sword-bearer, the question would not arise, as the extra space was required for the plume of his helmet. The flowing hair and uncovered head can scarcely be quoted here as proof of rank, on the analogy of the Leader in the Harvester vase; for the one man of those behind the row of shields whose head is preserved is also bareheaded and has flowing hair, and yet is, without doubt, a soldier in the ranks. It is conceivable that the staff-bearer is an envoy from another city, holding parley with the chieftain and his men.

In any case the ideal grace and dignity of these two figures, the pose with which they throw head and body

[1] The views here expressed in regard to the religious character of this garment differ from those of the Italian excavators.

[2] Described by Paribeni in *Rend.* xii. 1903, p. 324.

[3] So the Italian excavators.

back, is beyond any representation of the human figure hitherto known before the best period of Archaic Hellenic art. The fresco of the Cupbearer is the only thing that comes anywhere near it ; with other human figures, even from Knossos, they have little in common except the narrow Minoan waist.

CHAPTER III

THE BEGINNINGS OF MINOAN CIVILISATION

This mass of discoveries on Cretan sites has not only made the Candia Museum one of the most important in the world, but has also immensely complicated the archæological situation. The position created by Mr. Evans's first excavations at Knossos was simple and comfortable. The word Mycenæan was still used of everything which came between the Neolithic age and the beginnings of classical Greece. Within this vast period an evolution had, of course, been recognised, and Pre- and Sub-Mycenæan were terms commonly in use. A glance, however, at a book such as the first volume of Professor Ridgeway's *Early Age of Greece*, published in 1901, will show how vague such distinctions were, and to what a large extent Mycenæan civilisation was still regarded as an indivisible whole. In this civilisation Crete was found without surprise to have played the leading part that tradition had always claimed for it. The closest determination of date which we seemed likely to secure was that the mature bloom of the art of Knossos was an earlier stage than that represented in the lower town of Mycenæ, and practically contemporary with that of the fourth Shaft grave on its acropolis. The simplicity and the danger of such "thinking in millenniums" is well illustrated by Professor Ridgeway's book itself. The impression left on the reader is that between the Neolithic age and the Geometric there was just time enough for the Pelasgians to be overthrown by the

Achæans. Learned and original as the writer is, he never faces the question whether the facts at his disposal are at all likely to be sufficient to account for the events of two or three thousand years. We have the uncomfortable feeling that a similar way of dealing with a similar amount of knowledge might have given us the conquest of Britons by Saxons as a full and adequate account of the thousand years in the history of our own island which precede the Norman invasion.

Mr. Evans himself, and, indeed, his immediate fellow-workers, never fell into this error; we find them from the first feeling tentatively after a closer determination of date. Such dating, modified as it has inevitably been by the yearly progress of discovery, makes the reading of Mr. Evans's earlier reports dangerous work, and even his present conclusions [1] must not in every detail be accepted as his final ones. Before discussing their soundness or the problems they suggest, it may be well briefly to describe them. We notice first and foremost that Mr. Evans has banished the word Mycenæan as a generic description of the early civilisation of Crete, and has substituted for it the word Minoan. The reason for a change of some kind is not far to seek. Between the Neolithic age and the Geometric Mr. Evans has found himself able to distinguish nine epochs; and it is only in the seventh that the earliest of the remains found at Mycenæ itself can be said to begin; while it is only the ninth which is coincident with the widest diffusion of what has hitherto been known as Mycenæan culture.

Whether the word Minoan was the best one to substitute is of course another matter. It is argued by some German archæologists, such as Dr. Dörpfeld [2] and Professor Reisch,[3] that it is absurd to describe periods that

[1] As given in *E.C.* 1906, *B.S.A.* xi. 1906, and on the labels of the Ashmolean Museum.

[2] *Ath. Mitt.* xxx. 1905, p. 296.

[3] *A.G.W.* 1904, Sitz, p. [14], n. 1.

stretch over thousands of years by a name that was presumably given to one particular historical personage. For the plea which they put in for the time-honoured word Mycenæan, consecrated by Schliemann's epoch-making discoveries, we have much sympathy, and there is no doubt that the ambiguity that now involves the term Mycenæan, used sometimes in its old generic and sometimes in its new specific sense, will for a long time to come lead to confusion. On the other hand the argument that the term is inapplicable to the early periods that are almost unrepresented at or near Mycenæ [1] is unanswerable. Racial names such as Achæan or Carian, after which Dr. Dörpfeld hankers, are out of the question, as they take for granted racial theories that are the subject of debate. "Ægean," on the other hand, which Professor Reisch supports, will possibly prove ultimately the best generic word for the civilisation as a whole, while Mycenæan and Minoan will fit into it, as representing certain stages of its development in different localities. For such a synthesis we are not yet ready, but we may infer that it is to something like this that Mr. Evans himself is looking forward. In the cases of his own Museum, the Ashmolean, at Oxford, he has only a few months ago divided his specimens of pottery from islands like Melos and Amorgos into nine epochs, and equated them, as Early, Middle, and Late "Cycladic," with the nine Minoan epochs.[2]

Meanwhile there may be pleaded for the term Minoan,

[1] The early sub-Neolithic periods are represented both at the Heræum on the north-east of the plain of Argos, and on the hill called Aspis on its west (W. Vollgraff in *B.C.H.* 1906, pp. 1–34); but the Middle Minoan periods are almost unknown, except sporadically at Tiryns. See *Ath. Mitt.* 1905, p. 151 *seq.* and J. L. Myres in *Y.W.C.S.* 1907, p. 22.

[2] Cp. the interesting suggestion made by J. L. Myres in *Y.W.C.S.* 1907, p. 26, that it may be possible, with slight modifications, to equate Dr. Orsi's three "Sikel" periods with Early, Middle, and Late Minoan.

so long as we restrict it to the Civilisation of Crete, not only Mr. Evans's own fanciful play on the mysterious "nine years" of Minos's kingship as we read of it in the *Odyssey*,[1] but the more significant fact of the common occurrence of Minoa as a place name.[2] The examples that we have already mentioned, the Antiochs and Seleucias and Cæsareas, remind us how frequently a name is common to a dynasty when originally it is peculiar to an individual; while the Alexandrias show that the founder of the dynasty may live centuries before the conqueror who founds the towns. In Aosta, Augsburg,[3] and their fellows, we have an example of place names arising from what was never the ruler's personal name, but only his title. Although there is no evidence that the word Minos was a titular name such as Pharaoh in Egypt, it is at least a curious coincidence that the most chronological of the Greek sources that hand it down to us suggests a dynasty rather than a single individual. The *Parian Chronicle* gives us one Minos in the fifteenth century B.C. of its scheme of dating, and another in the thirteenth;[4] and Diodorus[5] and Plutarch[6] tell a similar story. Though this tradition is unknown to our earliest Greek authorities[7] and is crude enough in the form in which it reaches us, the obscure genealogy of the Minoan house, with its blend of Pelasgian, Phœnician, and Doric elements,[8] suggests that the name may have had a long history. It should be remarked that not only have English archæologists adopted Mr. Evans's system, but also the American excavators at Gournia,[9] and the

[1] *E.C.* p. 4; *Od.* xix. 178–9.

[2] See pp. 11–3.

[3] Augusta Prætoria and Augusta Vindelicorum.

[4] *M.P.* 11, 19; F. Jacoby, 1904.

[5] iv. 60. [6] *Theseus*, 20, Ναξιακά.

[7] Homer, Thucydides, Herodotus. Jacoby, *M.P.* p. 59, traces it back to Andron. E. Bethe in *H.* xxiv. 1889, p. 416, is wrong in seeing it in the Platonic Dialogue, *Minos*, 318–20.

[8] See p. 204. [9] Miss Boyd in *C.R.A.C.* p. 226.

Italian at Phæstos.[1] They at least have not felt that the word Minoan implies an unwarrantable thalassocracy of Knossos over the Ægean world! However complicated the evidence may be—and it is one of the objects of the present book to explain it—no archæologist can afford to ignore Mr. Evans's system and talk airily of "Knossos I."[2] There is no such thing as Knossos I. It would be as sensible to talk of "Athens I.," or "Troy XXV."! The Minoan classification may be modified, or it may be opposed, but it must be grappled with. Those who ignore it will find that they have dropped behind.

The first of the nine epochs thus designated as Minoan immediately succeeds the Neolithic Age. Its deposit reaches to a depth of 17 feet below the surface of the soil, while below it the Neolithic remains are found, at one testing-point to a farther depth of nearly 21 feet, at another to one of 26 feet.[3] Mr. Evans seeks to fix its date by certain connections that its remains show with those of early Egypt. The black hand-burnished ware that it has inherited from the latest Neolithic Age is stated by Professor Petrie to be "indistinguishable in colour, burnish, and general appearance" from certain vases which he has found in Ist Dynasty tombs at Abydos; and he suggests that this pottery is un-Egyptian in character and may have been imported from Crete.[4] Further a Syenite vase and Liparite and Diorite bowls found in the Palace of Knossos, if not actually importations from Egypt, are certainly based on Egyptian models of a very early period, and are used by Mr. Evans to connect Early Minoan I. with

[1] Halbherr in *Rend.* xiv. 1905, pp. 374, 393.

[2] *E.g.* in the last published number of *Ath. Mitt.* (xxxi. 1906, p. 364) some vase fragments are said to be like "Troja II. and Knossos I."

[3] *B.S.A.* x. p. 25.

[4] *Ibid.* p. 23. See Petrie, *M.A.A.* 1904, fig. 64, p. 166.

the first Four Dynasties.[1] It must be noticed, however, that, so far as can be judged from the published evidence, these three vessels do not seem to have been found in Early Minoan deposit at all. The Syenite vase was discovered in 1900 somewhere near the Court of the Altar in the south-west of the Palace. At that time it was not regarded as of importance, and we are given no exact details as to the objects with which it was found; but in 1903, when it was first published, it was quoted by Mr. Evans to illustrate the contents of a pit near the East Pillar Room.[2] This deposit was placed by him the next year no earlier than Early Minoan III.,[3] and was shifted by Mr. Mackenzie in 1906 to Middle Minoan I.[4] The Diorite bowl was found in 1902 "among some débris from the south wall" of a store closet that contained a number of vases of Middle Minoan III.,[5] and although it may be earlier than the contents of the room, the interval of time need not be a great one. The Liparite bowl, again, was only found the same year in "disturbed earth" on the east slope, near some store-rooms containing Middle Minoan pottery.[6]

It is not certain, too, that the shapes of these Egyptian vases did not survive in Egypt for a long period after their first invention,[7] and even if these particular examples could be proved to be among the first examples of their style, there is always the baffling possibility that objects of such hard material would not break easily, and might long survive as heirlooms. It is significant in this connection that certain examples of Egyptian stonework, in particular a small Diorite bowl,[8] which have quite as good a right to be dated from the first Four Dynasties

[1] *E.C.* p. 5.
[2] *B.S.A.* ix. figs. 67a, 67b, p. 98, figs. 65, 66, pp. 95, 96.
[3] *Ibid.* x. p. 20. [4] *J.H.S.* xxvi. p. 252. See below, pp. 51, 58.
[5] *B.S.A.* viii. fig. 73, p. 122, figs. 49, 50, pp, 88, 89.
[6] *Ibid.* fig. 74, p. 123. [7] *P.T.* pp. 147–9, 165.
[8] *Ibid.* fig. 128, p. 151.

as the three we have been discussing, were found by Mr. Evans as part of the first interment at the Royal Tomb at Isopata. In this case he is content to fall back on a theory of heirlooms, or of later Cretan copies, and does not use them to prove an earlier date than Middle Minoan III.[1] Although, of course, it is quite possible that in point of fact the vases were early in one case and late in the other, it is clear that they cannot be used at will to prove the two dates, but must be judged, within certain limits, according to the objects with which they are found.

The uncertainty which involves the dating of these importations from Egypt, and the fact that even the Abydos vases may be connected with the Latest Neolithic period as well as with Early Minoan I., suggests that as yet it is not safe to involve the beginnings of the Minoan periods in Egyptian chronology. The confusion, indeed, which surrounds that chronology in its early stages, and the growing divergencies in the various systems of dates, would rob such equations, however well established, of any objective value. In provisionally accepting Lepsius's date of 3892 B.C. for the Ist Dynasty,[2] Mr. Evans was probably influenced by a desire to strike a mean between the 3315 of Meyer, and Petrie's first date of 4777. Now that Petrie, however, as will be explained later, has receded to 5510 for the Ist Dynasty and 4731 for the IVth,[3] Mr. Evans will, we expect, prefer that the beginning of his nine periods should be placed roughly in the Fourth Millennium, as a reasonable, though only probable date on its own merits, rather than that it should shift with each new speculative interpretation of the first torn fragments of the Turin Papyrus.[4]

[1] *P.T.* pp. 165, 166, 170. [2] *B.S.A.* x. p. 25.

[3] *Sinai*, 1906, p. 175. See Chapter V. below.

[4] We do not yet possess astronomical evidence affecting the dating of the earliest Dynasties, and Lepsius's date for the Ist Dynasty might be held by one who accepted the Berlin astronomy for the XIIth. See Chapter V. For a later dating, see R. B. Seager, *T.D.A.P.* i. Part 3, pp. 213–21.

If we thus allow about 3 feet of deposit for every millennium, we get a great age for the Neolithic strata that are below. Progress moves slowly in the dim early periods, and we need not shrink from the dates of 10,000 or 12,000 B.C. which are thus given to the first settlement of man upon the hill at Knossos.

The black hand-burnished ware, or "Bucchero" that it had inherited from Neolithic times is not what is most characteristic of Early Minoan I. What differentiates it is the use of paint to produce colour effects.[1] The Neolithic artist's device for securing a coloured design was to make incisions in the surface of his hand-polished ware, so as to make a pattern of zig-zags or triangles and then fill them up with white powdered gypsum. This is the so-called "incised" or "incrusted" pottery which is found, not only in Crete and Egypt,[2] but, in still greater quantities, over a wide area of Central Europe, from Southern Russia to the western borders of Austria.[3] It was the achievement of the Early Minoan Age to produce, by painting on the flat, the geometric effects that hitherto had been produced by the white filling, and it is possible that the very pigment used was the same white gypsum treated differently.[4] The invention once made, there were rapid developments. A lustrous black glaze was spread as a slip over the surface of the clay to imitate the old dark hand-polished surface, so that the lustreless white patterns over it gave the effect of the best old incrusted ware;[5] and the black

[1] *E.C.* p. 5; Mackenzie in *J.H.S.* xxvi. p. 244.

[2] Petrie, *M.A.A.* 1904, fig. 61, p. 161.

[3] Mackenzie in *J.H.S.* xxiii. p. 159; M. Wosinsky, *Lengyel*, 1888–91, and *I.K.* 1904; H. Schmidt in *Z. f. Ethnol.* 1903, pp. 438–69, 1904, pp. 608–56, 1905, pp. 91–113; H. Wilke in *ibid.* 1906, pp. 1–33; M. Hoernes, *N.K.O.* 1905, especially pp. 36–9, where there is a criticism of Wosinsky that is amply justified; Von Stern, *P.K.S.R.* 1905. See below, Chap. XI.

[4] *J.H.S.* xxiii. p. 162.

[5] Hogarth and Welch in *J.H.S.* xxi.; cp. fig. 30, p. 96, with fig. 31, p. 97.

glaze, once discovered, was seen itself to have possibilities as decoration, and was in other vases laid on in black bands on the natural light buff of the clay.[1]

Thus, from the very first use of paint for Minoan fabrics, a dark design on a light ground is seen side by side with a light design on a dark. Although, in the different stages of the later development of Minoan art, first one and then the other of these two principles is dominant, and for a time the polychrome style combines the special characteristics of both, yet at no stage does either wholly disappear till the last days of the Palace of Knossos. Dr. Mackenzie, indeed, the chief authority on Early Cretan pottery, suggests that even then, in Late Minoan I. and II., the principle of the light design on the dark ground may only have been latent, as in some long Katavothra of fashion. The competition, in the Attic workshops of the end of the sixth century, of the black-figured and the red-figured style, may be due, not to accident or re-invention, but to a survival of the two old co-existent principles.[2] The beautiful polychrome Lecythi of Attic art may represent a similar survival of the Kamáres technique of Middle Minoan II. Evidence is accumulating, from Naukratis, Rhodes, the Polledrara estate at Vulci, and, still nearer Athens, at Eleusis,[3] that seventh and sixth century Ionia had already revived the polychrome principle, and had inspired more than one local centre to apply it in new and fascinating ways. This silent lingering of tradition, among humbler folk perhaps, is also illustrated by the Geometric ornament of these Neolithic and Early Minoan vases, which comes to the front again in the so-called Geometric Age, when the great artistic periods

[1] Mackenzie in *J.H.S.* xxiii. p. 165.

[2] *Ibid.*, p. 202.

[3] See the interesting articles by Cecil Smith in *J.H.S.* xiv. pp. 206–23, Plates VI.–VIII., and K. Rhomaios in *Ath. Mitt.* xxxi. 1906, pp. 186–204, Plate XVII.

are over.[1] Just so, at Phæstos, we have rough polygonal or "Cyclopean" building, both before and after the finest work.[2]

The vases of Mr. Evans's next stage, Early Minoan II., are marked by a greater freedom of design and variety of shape. Simple curves are seen for the first time as well as straight lines, and vases with long horizontal spouts or "beaks" come into fashion, the "Schnabelkannen" of German archæologists.[3] At Vasiliki, near Gournia, and to a less extent at Palaikastro, we find a distinctive red and black mottled ware. In the view of Mr. R. B. Seager,[4] who conducted the excavations at Vasiliki, the effect is produced by the vase being coated with red paint, and then fired in a bed of coals in such a way that live coals actually touched the surface at various points, and burnt black patches on the red. At Gournia itself and other sites there is a curious piece of "archaism," which persists even in the next period; a revival of the old incised ware that had been supplanted by its painted rival.[5] Such vases are found in the round vaulted Tholos of Hagia Triada,[6] along with very short triangular dagger-blades of copper,[7] an early type of seal of a cone or cylinder shape,[8] and tiny representations of the human figure in alabaster or steatite, of a type

[1] So C. C. Edgar in *Phylakopi*, p. 106. The differences between the two Geometric styles noticed by W. Vollgraff in *B.C.H.* 1906, p. 29, do not invalidate the argument, in spite of J. L. Myres's remarks in *Y.W.C.S.* 1907, pp. 23–4.

[2] Cp. *Mon. Ant.* xiv. 1905, fig. 40, p. 414 (so *B.S.A.* ix. p. 17 for Knossos), with *ibid.* fig. 15, p. 353.

[3] *E.C.* p. 6.

[4] *T.D.A.P.* i. Part 3, pp. 213–21; see Dawkins, *B.S.A.* xi. pp. 272–4. For a discussion of the method of producing the black hand-polished surface of the vases of the preceding periods see Myres in *J.A.I.* xxxiii. p. 368–71.

[5] *E.C.* p. 6; Miss Boyd in *C.R.A.C.* p. 226.

[6] Halbherr in *M.I.L.* xxi. 5, Plate IX. fig. 21. See above, p. 29.

[7] *M.I.L.* Plate X. fig. 24.

[8] *Ibid.* figs. 25, 26; *E.C.* p. 6.

even more primitive than the contemporary "Cycladic" idols of Amorgos.[1]

It is in Early Minoan III. that the Cyclades, whose culture seems up to this point to have been farther advanced than that of Crete,[2] first come into close connection with it. It is now for the first time that we meet in Crete that fiddle-shape conception of the human figure that we are so familiar with in the flat marble idols of Melos,[3] Paros, and Amorgos. The beginnings of the first city at Phylakopi are contemporary, and the second or "burnt" city of Troy, that Schliemann wrongly equated with the Homeric age, covers this period, though it begins earlier, and probably lasts longer.[4] Crete now takes its proper place as a half-way house between Egypt and the Ægean. The seals of the period show on them primitive pictographs that are certainly derived from the pictographs of the so-called button seals of Egypt.[5] We cannot be sure, however, that this borrowing dates from the time of the VIth Dynasty, when this type of seal was first common in Egypt; and the difference between Petrie's new date of 4206 and Meyer's of 2540 [6] is so vast that even an exact equation would help us little in our Cretan chronology. As will be seen later, the question of the dating of the first four Minoan periods largely depends on the position that we assign to the bloom of Minoan art from Middle Minoan II. onwards. Apart from this, however, there is room for much difference of opinion as to the length of time necessary for these periods of preparation. It may be taken as a safe

[1] *M.I.L.* xxi. 5, Plate XI. fig. 27, and p. 250.

[2] This is well shown in the Ashmolean cases.

[3] Bosanquet and Welch in *Phylakopi*, Plate XXXIX. and p. 194.

[4] Dawkins in *B.S.A.* x. p. 195, Tod in *ibid.* ix. p. 342; Mackenzie in *Phylakopi*, pp. 243–54. See above, p. 6; below, p. 200.

[5] *E.C.* p. 7; *B.S.A.* viii. p. 121.

[6] *Sinai*, 1906, p. 175; Meyer, *A.P.A.* 1904, p. 178. See below, Chapter V.

general truth in the history of art that the rate of progress accelerates as the standard rises, and the question as to whether, with Mr. Evans, we end Early Minoan III. at B.C. 3000,[1] or bring it several hundred years later, must in the present state of our knowledge mainly depend on our opinion of the artistic standard it represents.

It is in this connection not easy to be sure how far certain of Mr. Evans's phrases about spirals and polychromy in his *Essai de Classification*[2] must be modified in the light of a subsequent article by Dr. Mackenzie.[3] Dr. Mackenzie here gives his opinion that the beginnings of polychrome decoration, and the development of anything that has a right to be called a spiral system, cannot be assigned to a period earlier than Middle Minoan I.; and we cannot fail to connect his statement with the fact that he assigns to that period[4] three important early deposits of the Palace of Knossos that were regarded by Mr. Evans in 1904 as "the best evidence" for the culture of Early Minoan III.[5] It is difficult to find in the vases from Palaikastro[6] and Gournia that can safely be attributed to Early Minoan III. anything more than simple concentric circles, or a cable chain of half-circles. This is probably one of the ways in which the spiral idea arose,[7] but is itself only the spiral as a unit, and not the spiral as a chain.[8] The use, too, of red paint instead of, but not along with, black, on a light ground

[1] See the Wall Cases in the Ashmolean. Mr. Evans ends M.M. I. at B.C. 2500. The arguments of chapter v. would, if accepted, necessitate bringing this latter date at least two or three hundred years lower, if not to B.C. 2000.

[2] *E.C.* p. 6.

[3] *J.H.S.* xxvi. pp. 244–6.

[4] *Ibid.* p. 252.

[5] *B.S.A.* x. p. 20. See below, p. 58.

[6] Dawkins in *B.S.A.* x. fig. 2, p. 199, and p. 201, n. 1, and xi. fig. 5, p. 271 and pp. 273–4; Mackenzie in *J.H.S.* xxvi. p. 246, n. 3.

[7] So H. Wilke in *Z. f. Ethnol.* xxxviii. 1906, figs. 69, 70, p. 30.

[8] So Mackenzie in *J.H.S.* xxvi. p. 246, n. 3. See Plate VII. fig. 20, a M.M. I. example of the cable chain.

in the later deposits of the Hagia Triada Tholos,[1] can hardly be what Mr. Evans meant by the "beginnings of polychromy"; and although the bulk of the deposit from Hagios Onuphrios may be placed here, a polychrome two-handled jar with red and white streaks on a dark ground must be regarded, as Mr. Evans himself says, as one of the latest objects in it, and probably belongs to the following period.[2]

These periods of course are of Mr. Evans's own creation. An attempt to fix their limits is not an argument against his conclusions, but an effort to interpret them in greater detail than he has yet had time to do. It is made legitimate —and also, it may be added, inevitable—by the fact that both he and Dr. Mackenzie have been generous enough to take the world into their confidence by publishing provisional classifications. In regard to more fundamental points, in which the foregoing account follows them, they have already been criticised by so eminent an authority on early art as Dr. Moriz Hoernes. Dr. Hoernes points out[3] that elsewhere incised decoration is often not an introduction to painting on the flat, but a later stage to it; and he further maintains that in early art rectilinear decoration marks an advance on curvilinear, which, in the long ages before pottery was thought of, would be naturally associated with the fibrous baskets that served as vessels. The bearing of this argument on the Neolithic spirals of South Russia and Central Europe will be discussed later in the present book.[4] However true it may be, the fact remains that in the internal development of Minoan pottery painting on the flat is later than incision, and spirals later than

[1] *M.I.L.* xxi. 5, p. 250. *Rend.* xiv. p. 397. Halbherr does not state exact provenance. If the vase is from the adjoining chambers, it dates from M.M. I. See Mackenzie, *J.H.S.* xxvi. p. 249.

[2] *J.H.S.* xiv. p. 325; *E.C.* p. 6. See below, p. 76.

[3] *N.K.O.* 1905, pp. 11, note 1, and 125. [4] Chapter XI.

straight lines. The revival of incised ware at Knossos in Early Minoan II. and III. is the only feature in the situation which shows that progress was not always in the one direction.

So far, then, if we are right in assuming that Mr. Evans agrees with his lieutenant, we have only got a short way beyond barbarous art. The beginnings of pictographic signs alone place Crete above the neighbouring Ægean settlements. It is in the next period, Middle Minoan I., that the great advance is made, and that not only in the pictographic script.[1] The remarkable clay figurines of female figures found by Mr. J. L. Myres on the peak of Petsofa, above Palaikastro, with their open corsage, wide standing collars, high shoe-horn hats, elaborate crinolines, and their general impression of an inaccurate attempt at representing Queen Elizabeth, have the ground colour of their clay painted over with a colour scheme of black and white, red and orange.[2] At Knossos, too, side by side with monochrome vases, with their design painted in lustrous black varnish on a bluff clay slip, we find lustreless polychrome decoration in white, yellow, orange, red, and crimson, on a lustrous black varnish ground.[3]

It may be noticed that not only is the Geometric decoration of these vases of an advanced type, with a developed spiral system, but there are interesting traces of a vigorous naturalistic spirit, which is startling in such company. A dark glaze design on a light ground gives us fragments of three Cretan wild goats, with curving horns, and behind them a beetle with a tail. The goats are in silhouette with incised outline, in the manner of early classical black-figured vases, while the beetle is drawn freely without outline.[4] The fragments are unfortunately

[1] *E.C.* p. 7.

[2] *B.S.A.* ix. Plate VIII. ; see also the male figure, Plate IX. and pp. 356–87.

[3] *B.S.A.* xi. Plate I. ; *J.H.S.* xxvi. Plates VII., IX., X., XI.

[4] Mackenzie in *J.H.S.* xxvi. p. 247, and Plate IX. No. 3.

too scanty for us to get any idea of the part the beetle is meant to play in the procession, and it is possible that a single vase is insufficient evidence for attributing naturalism to an age. That there was an interest in animal life at the time may be inferred from a curious black glaze vase with red and white stripes, the shape of which imitates the body, wings, and head of a dove,[1] in a spirit which is beyond the mere love of the grotesque shown in the corresponding "ox" or "duck" vases of Phylakopi.[2] There is, however, to our knowledge, no such free painting either of plant or animal life in Crete till Middle Minoan III.; while even here animal life seems to have been reserved for frescoes and porcelain. The nearest things to it in early art are the Bull and the Dog on the Neolithic vases of Petrény in South Russia.[3]

Have we to do with the eccentricity of an individual artist? Or will some yet undiscovered evidence justify the hypothesis that the conventional designs of the Kamáres polychrome ware of Middle Minoan II. are a reaction from an all but lost naturalistic phase of the period that preceded them? Was the "Palace Style" of Late Minoan II., following on the great naturalistic periods,[4] proof of a reaction that had already once taken place in the history of Cretan art?

[1] Hogarth and Welch in *J.H.S.* xxi. fig. 1, p. 79.

[2] Edgar in *Phylakopi*, pp. 88–92, figs. 74, 75, and Plate IV. Nos. 6, 7, 8.

[3] Von Stern, *P.K.S.R.* 1906. Plates VIII. 3; XI. 12b, wrongly numbered in the text p. 66.

[4] See below, Chapter VI.

CHAPTER IV

THE BUILDING OF THE PALACES, AND THE GREAT MIDDLE MINOAN PERIODS

It will naturally be asked at this point whether we have yet reached any connected system of walls or floor levels. Are there traces of anything that we can call a palace connected with the remains of these first four periods? Now it goes without saying that habitations of some kind or another do not constitute a palace. That there were habitations on the hill of Knossos, not only during these four epochs, but during the Neolithic Age behind them, is certain from the existence of the remains themselves. The character of the habitations is another matter, and it is probable that even the excavators themselves will need further testing and trial pits before they really make up their minds. Dr. Dörpfeld has recently [1] tried to draw far-reaching inferences from the character of the construction and ground plan as shown at different stages of the stratification; but experienced archæologist and practical architect as he is, he has been shown by Dr. Mackenzie [2] to have misunderstood the nature of the evidence. In view of his mistakes the following interpretation of the evidence as to the successive buildings on the site is given with some diffidence.

For the Neolithic period no houses, or remains of houses, have been discovered at Knossos, but the whole hill, like a "Tell" in Mesopotamia, is itself largely

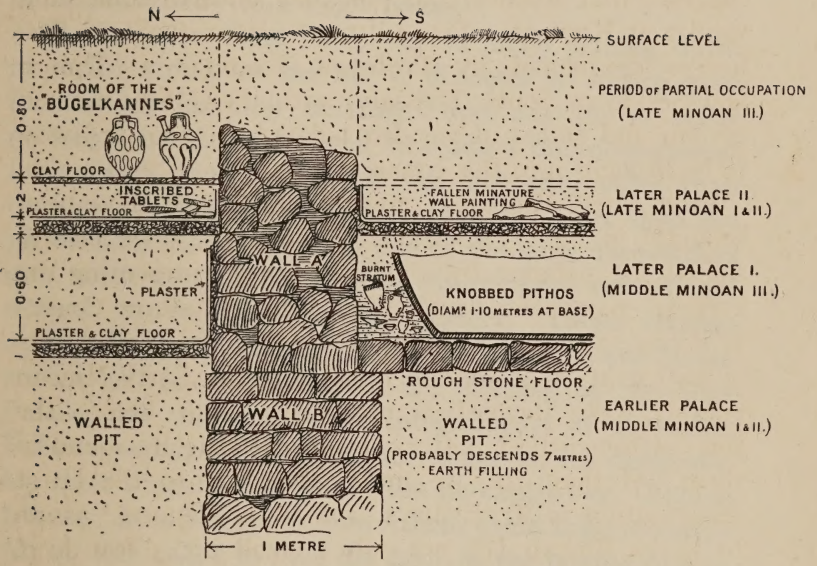
[1] *Ath. Mitt.* xxx. 1905, pp. 257–97.

[2] *B.S.A.* xi. pp. 181–223. See below, Chap. V.

composed of the thick deposit formed by many stages of Neolithic culture. The absence of traces of houses may of course be due to the fact that they were only wattle and daub huts, which have naturally decomposed into the pale clay in which the whole deposit is embedded; but Mr. R. M. Dawkins's discovery on a high plateau near Palaikastro [1] of a house of undoubtedly Neolithic time with the bottom course of undressed limestone blocks still standing and forming a definite ground plan,[2] suggests that further trial pits may unearth something similar at Knossos. The still more elaborate Stone Age houses discovered by Professor Tsountas at Dimini and Sesklo in South Thessaly, with their three-roomed system and traces of wooden pillars,[3] are too far away to be brought into this connection.

From Early Minoan I. onwards, floor levels have been brought to light at various test points, as is clearly shown, for instance, by a Strata section representing the various pavements underlying the Western Court.[4] It is not so easy to determine whether the various pits or basements that contain remains of the Early Minoan periods were themselves necessarily built before the time of the earliest pottery fragments that are found in them. If they are, we must, according to the latest classification in Mr. Evans's own yearly Reports,[5] assign to Early Minoan III. not only a small pit, 3 feet deep, under the pavement near the Pillar Rooms in the west of the Palace,[6] but also, what is more important, a basement with two Monolithic pillars of limestone on the south-east.[7] As there is no trace of a doorway to this chamber, it is probable that access to it was by a trap-door and ladder through an upper floor supported

[1] *B.S.A.* vi. p. 6.
[2] *Ibid.* xi. pp. 260–8, fig. 2, p. 263.
[3] *C.R.A.C.* 1905, p. 207. See below, pp. 168, 193.
[4] *B.S.A.* x. fig. 7, p. 19.
[5] *Ibid.* p. 20. See, however, p. 58, n. 1, *infra*.
[6] *Ibid.* ix. pp. 94–8, fig. 66, p. 96.
[7] *Ibid.* fig. 7, p. 18.



STRATA SECTION FROM PALACE OF KNOSSOS

PLATE III

by the two pillars. Such a cellar was in the great Minoan periods common in the houses of well-to-do citizens,[1] and does not prove a palace. At so early a stage as this, however, it would probably point to an unusually elaborate building. That considerable buildings, more than one story high, did exist at the time, is shown by Mr. Seager's excavations at Vasiliki, where the complex of more than twenty rooms, in which the Early Minoan II. mottled ware was found, belonged in all probability to a single house.[2]

On the other hand there was so much planing down of earlier strata on the hill of Knossos to secure good foundations for later building [3] that any pit or cellar no longer in use might well be made a dumping-ground for rubbish, some of which was not only older than the new building under construction, but older than the pit or cellar itself. Thus in one of the large deep-walled pits north-west of the Central Court there were found several pieces of Neolithic pottery. These strange 25-feet-deep cells,[4] two of which are figured in our Strata section (Plate III.), beneath the flooring of the later Palace, are undoubtedly an integral part of an earlier Palace—perhaps, as Mr. Evans suggests, its dungeons. Up their slippery cemented sides no captive or "human tribute" from Megara or from Athens could hope to escape till he was called to take his turn in the boxing ring or the bull fight "to grace a Minoan holiday." Mr. Evans, however, does not conclude from the Neolithic potsherds that they were built in Neolithic or even in Early Minoan times, but rather that the potsherds "must have reached their positions through some later filling in." [5] Even, therefore, if some of the pottery in the basement of the Monolithic pillars is still held by Mr. Evans, as it was

[1] Bosanquet in *B.S.A.* viii. p. 306.
[2] *T.D.A.P.* i. 3, pp. 213–21. See above, pp. 24, 49.
[3] *B.S.A.* ix. p. 94, and D. Mackenzie in *ibid.* xi. p. 183.
[4] *Ibid.* vii. pp. 35, 36, ix. pp. 22–8. [5] *Ibid.* vii. p. 36.

in 1904, to belong to Early Minoan III., the evidence is not conclusive for the existence of a Palace on the hill at that date. It is probable, however, that recourse need not be made to the arguments just used, and that Mr. Evans may be taken as accepting [1] the modifications in the classification of Early and Middle Minoan pottery suggested by Dr. Mackenzie in 1906.[2] On this new classification the earliest deposit of the basement with the Monolithic pillars, and the little pit near the Pillar Rooms, would be assigned to Middle Minoan I.

By this period, then, we may have at last reached the foundation of a Palace on the hill of Knossos, but we can tell little about its plan or structure, From the pits and the basement we can infer that the walls were of small rough masonry,[3] unlike the splendid and regular building of later days.

At the end of the period there are signs of a general catastrophe, and with Middle Minoan II. there are undoubted traces of what we may call the Early Palace. At Phæstos a considerable portion of the splendid Palace that we now see above-ground is shown by the evidence of vases to belong to this period. It is the opinion, not only of Dr. Dörpfeld, but of Mr. Evans, Dr. Mackenzie, and the Italian excavators themselves,[4] that the Theatral Area and West Court at Phæstos, and the one columned portico at their southern end,[5] have no organic connection with the rest of the Palace. All of them, indeed, were covered over before the later building was erected. Now it is true that the Theatral

[1] See pp. 51, 53. *E.C.* p. 7, would apparently assign to a "Transition Period" between E.M. III. and M.M. I. pottery of this character.

[2] *J.H.S.* xxvi. pp. 244, 246, 252. [3] *B.S.A.* ix. p. 17.

[4] *Ath. Mitt.* xxx. 1905, p. 264; *B.S.A.* xi. p. 185.

[5] Nos. 4, 1, and 3 on the Plan of the Palace of Phæstos, originally published in *Mon. Ant.* xiv. Plate XXVII. and reproduced in *Ath. Mitt.* xxx. Plate X. and *B.S.A.* xi. Plate V. See below, p. 79.

Area at Knossos does not stand in exactly the same relative position to the West Court as that of Phæstos; but its West Court itself, the wall that bounds it on the side of the Palace, the one-columned portico at its southern end, and the paved ways that lead to it, are extraordinarily like these Middle Minoan II. remains at Phæstos. As it was certain, too, that at Knossos these buildings were not covered up in the days of the Later Palace, as they were at Phæstos, but formed an integral part of its West wing, it seemed probable at one time that we could date other elements also in this West wing as we now see it, to these early days. Experiment, however, has shown that this hypothesis is wrong. Excavations made both under the pavement of the West Court and under the wall that bounds it on the Palace side, show fragments of pottery of the next period, Middle Minoan III.[1] The Middle Minoan III. pottery, too, that was discovered in the Northern Bath [2] does not prove, as Dr. Mackenzie seems inclined to suggest,[3] that the Bath was built before that period began.

In the main, therefore, the architecture of the Middle Minoan II. Palace at Knossos has to be inferred from the contemporary glory of Phæstos. It is from the singularly rich floor deposits that occur in almost every quarter of the site that we infer that Knossos was at the time not inferior to its sister city. Vases now show the polychrome style predominant, and monochrome decoration is only used for common ware. Middle Minoan II. is the period of Kamáres ware [4] in its most highly developed form, and the graceful decorative designs, egg-shell fabric, and delicate colouring of its

[1] *B.S.A.* x. pp. 14–8, fig. 7, p. 19, xi. pp. 20, 21.

[2] *Ibid.* vii. pp. 60, 61, fig. 18.

[3] *Ibid.* xi. p. 211. He says: "The conclusion is that the bathroom had ceased to be used at the period to which the pottery belongs, and that its actual construction went back to a somewhat earlier era."

[4] See p. 24

bowls and "tea-cups" [1] take us clear away from the region of what is merely primitive or curious, and show us what in any age would be considered beautiful.

The extraordinary thinness of the walls of these vases, which reminds us of the finest china, or even of Venetian glass, suggests that they were copied from beaten originals of bronze or silver. Some of them have elements in their designs stamped out into low relief to represent the repoussé ornament natural to such metal-work.[2] The colour effects, too, are so managed that they repeat the high points of light of their metal originals. The pigments used are rich and varied, and each colour is found in many tones. Black shades into purple, white into cream; brown has sometimes a red and sometimes an olive tint; yellows are either pale or orange; and red is not only a crude vermilion, but is weakened to pink, or strengthened with shades of orange and cherry and terracotta. Light and dark grounds are used indiscriminately, and indeed there is such a blending of the two styles that on some of the vases it would be difficult to say whether the design was light on dark, or dark on light.

In regard to the designs themselves there is less to say; they are subordinate, as in some of the best mediæval stained glass windows, to the general desire to produce a rich and harmonious colour effect. Patterns are largely geometric, with zig-zags, crosses, spirals, and concentric semicircles; while large surfaces are covered with the plain dot, used with extraordinary skill. Designs from plant life are rare, and where they occur they are highly conventionalised. Art can hardly be for the first time coming into contact with nature, but is reacting in a

[1] *B.S.A.* viii., 1901–2, figs. 70, 71, p. 120. See also the beautiful reproductions in colour in *J.H.S.* xxiii. Plates V. and VI. and *ibid.* xxvi. Plate VIII.

[2] *B.S.A.* viii. p. 118; Hogarth and Welch in *J.H.S.* xxi. pp. 81–3; Mackenzie in *ibid.* xxiii. pp. 172–4, xxvi. pp. 254–7.

decorative, stylised mood from previous attempts to imitate her.[1] As will be seen shortly, when we come to Middle Minoan III.,[2] the polychrome style of vase painting did not really lend itself to naturalistic treatment. It is interesting, however, to notice that the most beautiful of all the vases we have found has an elaborate water-lily design.[3] Plant form, if freely and boldly conventionalised, could be used then, as it has been in many arts since, to produce delightful decorative effects in any medium. The outside of the cup is enfolded by white petals, which, starting from a common centre at the base, and combining with narrow red lines and sections of the lustrous black of the ground, give a general impression of a light flower floating on the surface of a pool, though remote from the detail or colouring of nature. Nor is the effect spoilt by the complicated geometric design that runs above the petals on the rim of the cup, stamped out in low relief.

Once again, as at the end of Middle Minoan I., there was a general catastrophe at Knossos. In more quarters than one a large number of vases of the best polychrome type are found lying together on a floor, in position and practically undamaged, with a considerable depth of earth between them and the Middle Minoan III. floors above them.[4] It was probably some way on in this Middle Minoan III. period that the main scheme of the Palace system, as we now see it, was conceived. Alterations and additions were made later. Although the West system in particular belongs as a whole to Middle Minoan III., not only was the pavement of the West Court

[1] See pp. 53–4. [2] See pp. 62–3.

[3] *B.S.A.* viii. fig. 71, p. 120; *J.H.S.*, xxiii., Plate VI., No. 3. It is a cup (*ibid.* p. 173), though the handle is wanting and it looks, as figured, like a bowl.

[4] *B.S.A.* x. p. 16; so Mackenzie in *J.H.S.* xxvi. p. 256, but his language is more guarded than that which he used about the catastrophe at the end of M.M. I. on p. 253.

raised at a later date, but trial pits show that its area was considerably extended.[1] The Temple Repositories, too, west of the Central Court, and a number of apartments on its north-east side, were built in Middle Minoan III., but were completely covered in the next period.[2] None the less we should not be wrong in believing that, although there was more magnificence in the later remodellings, the Palace of Middle Minoan III. was as beautiful. Art is in the fascinating stage that immediately precedes full maturity. The Little Boy Blue who is gathering white crocuses in a field, and arranging them in a vase—for his flesh strangely enough is blue, and not the conventional reddish brown of all the Later Minoan frescoes [3]—is not an anatomically correct figure; but there is a naturalism in the drawing of the flowers and a refinement in the idea that arrests attention. The best vases have a delicate lily design, white on a lilac or mauve ground;[4] polychrome decoration is passing out of fashion.

As Dr. Mackenzie cleverly points out,[5] this change from polychrome to monochrome is itself due to the naturalism of the period. The colour repertory of the vase painter was limited by the conditions of his art. Although the colours that were possible to him were enough to produce beautiful polychrome effects if they were used in the purely decorative designs of the Kamáres type, they failed when they tried in the same way to reproduce natural objects, such as flowers. Green, for instance, which was essential for a naturalistic rendering of leaves and stems, was out of the range of the painter

[1] *B.S.A.* x. fig. 7, p. 19. See p. 6 for a M.M. III. "house" under the West Court.

[2] Including the Light Well that at the time of its discovery was called the North-East Hall, *B.S.A.* x. p. 13; Mackenzie in *ibid.* xi. p. 210, and *J.H.S.* xxvi. p. 265. [3] *B.S.A.* vi. p. 45.

[4] *Ibid.* viii. 1901–2, fig. 51, 7 and 10, p. 91; *J.H.S.* xxiii. fig. 8, Nos. 7 and 10, p. 189; and also *B.S.A.* x. 1903–4, fig. 1, p. 7, and fig. 2, p. 9. [5] *J.H.S.* xxvi. 1906, pp. 257, 258.

of vases. Thus, while the painter of wall frescoes revelled in his naturalistic greens and reds and yellows and blues, his brother of the vases, who had the same ideals and aspirations, was driven, by the very desire to express them, into a conventional monochrome. It was out of the question for him to give a polychrome, and so apparently naturalistic rendering of flowers, if he could not give the real colours of nature. The *chefs d'œuvre* of polychromy, such as the water-lily cup,[1] seemed to him fanciful and arbitrary in their colouring, and offended his taste. If flowers were to be rendered at all, both they and all other natural objects would have to be treated with severe conventionalism, as light upon a dark ground, or dark upon a light.

Our beautiful white-leaved, white-flowered lilies on the lilac ground prove, then, to be children of the naturalistic spirit. The same desire to imitate, and not merely to decorate, prompted the series of vases that imitate material other than their own. On certain vases from the Temple Repositories we see this imitative instinct both in the design, with its plump red birds, and in the material, the tightly drawn back mouth being reminiscent of the way a skin vessel has to be fastened to prevent wobbling and spilling.[2] These vessels, as the Phylakopi excavations show us, were importations from Melos, which from this period onward shows a peculiarly close contact with Knossos.[3] Knossos itself produced the serpentine vases that are made so as to represent plaited leather or basket-work,[4] and the huge knobbed and corded jars whose decoration imitates the ropes that had to be used to transport their heavy weight.[5]

On these pithoi, a fragment of one of which is shown

[1] See p. 61. [2] *B.S.A.* ix. fig. 26, p. 50.

[3] *Phylakopi*, Plate XXI. Nos. 1 to 5; Edgar, pp. 119, 120, 135; Mackenzie, pp. 259–63. See above, p. 14; below, p. 85.

[4] *B.S.A.* vii. p. 66.

[5] *Ibid.* viii. fig. 5, p. 11, ix. p. 27, x. fig. 3, p. 12.

in position on a Middle Minoan III. floor in Plate III. of the present book, there are also traces of a strange "trickle" ornament, that originally sprang from an attempt to imitate nature in one of her least graceful aspects.[1] An artist had noticed that when a jar is used for pitch or treacle, the outside of it is apt to get smeared. It occurred to him to symbolise the unconscious design that resulted, or, if we prefer it, to divert attention from its unpleasantness, as a cloth is chosen for a literary writing-table whose pattern already suggests the wandering of ink. He dabbed brown glaze paint on the jar close to the rim, and allowed it to trickle undirected down the sides! We cannot congratulate the good taste of Middle Minoan III. upon this piece of naturalism, even though it was sometimes rendered inconspicuous by knots and ropework.[2]

We are on the true level of the age again when we turn to the hoard of fine porcelain from the Temple Repositories described at the beginning of the book; the flying fish, the goat and her young, and the fern and roseleaf vase.[3] The most naturalistic gems are also to be placed here: wolves' heads, and owls, and triton shells, and animated scenes of the prize fight and the bull ring, and the boatman attacked by the sea monster.[4] Hieroglyphic writing is at its best, and the first kind of linear signs, Class A, though apparently only just come into fashion, had made rapid progress. They could indeed be used so flexibly that we find inside two cups of the period an inscription written in ink, in a cursive hand. If we are to judge too from the fact that the lines of the letters show a tendency to divide, it was written with

[1] *B.S.A.* x. p. 10.

[2] Mackenzie in *J.H.S.* xxvi. p. 264. See Plate XI. figs. 21–3. The idea may perhaps go back to a still earlier period. See *B.S.A.* ix. p. 120.

[3] *B.S.A.* ix. pp. 62–74.

[4] *Ibid.* figs. 32–6, pp. 54–8. See above, p. 14.

a reed pen.[1] What the medium was on which such pen and ink were ordinarily used, we cannot tell; imported papyrus, or palm-leaves, perhaps, or even parchment. The invention, we may be sure, once made, was not confined to the inside of pottery. The king who built the stately Tomb [2] to rest in at Isopata, between the harbour and the town, on the hill that overlooked the sea, may have had his deeds recorded, not on clay tablets, but on something more worthy of a literature.

[1] *B.S.A.* viii. fig. 66, p. 108, ix. p. 17. Evans in 1903 placed them later, but see Mackenzie in *J.H.S.* xxvi. p. 266. They come from a deposit above the Basement of the Monolithic Pillars mentioned above, pp. 56–8.

[2] *P.T.* 1906. For plans of this Tomb, with its fore-hall and its vaulted inner chamber, see Plates XCIII. to XCVII.; for the vaulting, fig. 145, p. 162; for view of it as excavated, Plate XCII. and fig. 121, p. 138; for the evidence on which it is assigned to M.M. III., pp. 164–71.

CHAPTER V

EGYPTIAN CHRONOLOGY AND THE DATE OF THE MIDDLE MINOAN PERIODS

THE high level of art and civilisation to which these two last Middle Minoan periods attain makes it a matter of vital interest that we should be able within reasonable limits to fix their date. We turn therefore with expectation to a considerable number of links that seem to connect them with contemporary Egypt. Vases that are undoubtedly of the Middle Minoan II. Kamáres type, and imported from Crete to Egypt,[1] were found at the place now called Kahun, close to Senusert II.'s pyramid at Illahun, due east of the Fayûm; and their discoverer, Professor Flinders Petrie, although doubtful at the first,[2] has for many years assigned the deposits in which they were found to the time of the XIIth Dynasty to which Senusert II. belonged.[3] Mr. Evans accepts the synchronism, and assigns to Middle Minoan II. the pictographic Cretan seal stones that are certainly derived from XIIth Dynasty types.[4] He further assigns to the following Middle Minoan III. stratum[5] a small seated

[1] So not only Petrie, but von Bissing in *S.H.* pp. 20–7.

[2] *K.G.H.* 1890, p. 43. See Hall in *J.H.S.* xxv. p. 321.

[3] *J.H.S.* xi. p. 199, and *M.A.A.* 1904, p. 157.

[4] *E.C.* p. 8; *J.H.S.* xiv. 1894, fig. 49, p. 327. See, however, below, p. 75.

[5] *E.C.* p. 9. The facts as to the stratum in which it was discovered are thus satisfactorily accounted for. Hall (*O.C.G.* p. 320) was right in doubting that it could be assigned, as it originally was, to the Kamáres period.

figure of Diorite found 2¼ feet below the pavement of the Central Court at Knossos. This figure, of which only the lower part is preserved, tells us, in the Egyptian inscription that is cut on it, of a private gentleman called Ab-nub-mes-wazet-user; and his formidable name, so Egyptologists tell us, could only have been perpetrated about the time of the XIIIth Dynasty.[1] Still more definite is the discovery, in an early deposit near the Northern Bath, in company with the serpentine vases described above,[2] of the lid of an alabastron with the cartouche of the Hyksos king Khyan.[3] It is thus certain that Middle Minoan III. did not end before the XVth Dynasty.

At this point certainty ends. The XIIth, XIIIth, and XVth Dynasties alike are at the present moment enveloped in a controversy in which a thousand years are but as yesterday. The traditional dating, still followed by most English Egyptologists, connects the XIIth Dynasty with the centuries immediately surrounding B.C. 2500. There is thus ample space for the intervening Dynasties before the well-established beginning of the XVIIIth at about 1580. Professor Petrie, for instance, till a year ago, placed the XIIth Dynasty from 2778 to 2565, and the XIIIth from 2565 to 2112;[4] Mr. Evans, drawing his equations from the later side of such dating, places his Middle Minoan II. from 2500 to 2200, and Middle Minoan III. from 2200 to 1800.[5] Many of the leading German Egyptologists, however, such as Erman, Mahler,[6] and Borchardt,[7] and historians of early civilisation like Eduard Meyer,[8] argue for a date later by six or seven hundred years;

[1] *B.S.A.* vi. p. 27.

[2] See p. 63.

[3] *B.S.A.* vii. fig. 20, p. 64, fig. 21, p. 65.

[4] *Hist.* i. 1902, pp. 147, 206. [5] See Ashmolean Cases.

[6] *O.L.Z.* viii. 1905, pp. 473–83, 535–41.

[7] *Z. Aeg. S.* xxvii. 1899, p. 99 *seq.*, where the Kahun Papyrus was itself first fully published.

[8] *A.P.A.* 1904. The fullest discussion of the subject.

Meyer, for instance, begins the XIIth Dynasty at 2000, and the XIIIth at 1788. They are partly influenced by *a priori* considerations of the length of time necessary for the Middle Kingdom and Hyksos period, but mainly by the discovery at Kahun of a XIIth Dynasty Temple Book, in which a priest tells his subordinates that a rising of Sothis or Sirius will occur on the 16th day of Pharmouthi, the eighth calendar month, in the seventh year of Senusert III. This is the word we used to read as Usertesen, till it was suggested that the name of the goddess Usert was written but not pronounced first, and that the transposition to Senusert or Senwosret would bring the word into connection with the Sesostris of Herodotus.[1] The astronomical argument that is based on this new "Sothic rising" would not touch the well-authenticated date of the XVIIIth Dynasty, which would still begin at about B.C. 1580; it would merely pack very much closer all that intervenes between it and the XIIth, and thus significantly reduce the period of the bloom of Minoan art.

The leading American Egyptologist, Professor J. H. Breasted, has accepted this new dating without qualification.[2] Professor von Bissing of Munich[3] and most members of the English school[4] are as yet inclined to hold their hands, and suggest that there must be something wrong with the new astronomical arguments, though they do not commit themselves as to what it is. Professor Petrie, however, has taken the bull by the horns in the best Minoan manner. He accepts the astronomical principles propounded by the Berlin school, and agrees that we have a right to place the XIIth Dynasty at a particular point in a "Sothic cycle" of 1460 years. So

[1] Hall, *O.C.G.* p. 320.

[2] *A.R.* 1906, vol. i., p. 26 *seq.*

[3] In letter to me of January 1907, which he has kindly allowed me to make use of.

[4] *E.g.* Hall in *C.R.* xix. 1905, p. 82, n. 1.

far, however, from accepting the resultant Berlin date for it, he pushes the whole thing a cycle of 1460 years further back, and begins the XIIth Dynasty in 3459, the XIIIth in 3246, and the XVth in 2533.[1]

The differences in date are so vast, and the issues at stake so important for our conceptions of Ægean civilisation, that we must consider at some length what is to be our attitude to these conclusions. It is clear at the outset that we must keep distinct the three very different kinds of grounds on which we can test them. The validity of the astronomical arguments, and the length of time required for the development of Egyptian art and history, are quite different things; while the length of time necessary for the development of Minoan art, which is the only kind of Minoan history that we can yet judge

[1] *Sinai*, 1906, pp. 163–75. It is difficult to know what to make of some of Petrie's statements either here or in his earlier discussion of the Sothic question in *Hist.* i. 1903, pp. 248–52. When for instance our MSS. of Censorinus give Thoth I as = VII Kal. Jul. = June 25 (Julian) in the year he is writing, A.D. 238, and deduce from it Thoth I as = XII Kal. Aug. = July 21 (Julian) for A.D. 139, Scaliger (*Cholodniak*, 1889, notes p. 75) conjectures XIII Kal. Aug., because by the dates given in the Ptolemaic Almagest Thoth I must have fallen in 139 A.D. on July 20 (Julian). The Germans all accept this conjecture. Petrie, however, in both books keeps July 21. Has he tacitly accepted Oppolzer's (*S.S.A.* 1885, pp. 16–7) ingenious defence of the text? On this view the Egyptian day began at sunrise, and thus overlapped two Roman days, which, like ours, began at midnight. Thus the rising of Sirius, occurring as it did just before sunrise, in the last few minutes of Thoth I, might be counted in July 21, as well as in July 20. Or is Petrie's July 21 an accident? On what principle, again, does he call A.D. 238, A.D. 239? He ignores, too, the further question, raised by the Germans, as to whether July 19 of A.D. 140 is not the date that Censorinus really ought to have given. The Kahun Inscription again, according to Borchardt's reading, makes Sirius rise on the 16th of Pharmouthi. Petrie, however, says the 17th. Is this a new reading of the text, or has his eye hit on the later entry in which the offerings given on the feast are entered on the next day?

by, is a thing different from either, and must stand on its own merits. Into the validity of the Berlin astronomy we cannot go at length, although we have tried in an Appendix [1] to explain in untechnical language the theory of the Egyptian calendar that it assumes. It may be pointed out, however, that the three German scholars we have quoted have gone independently into the details of the calculation and differ slightly from each other as to the exact year fixed by the Kahun Temple Book; Borchardt makes it six years later than Meyer, and Mahler three years later. The very fact, however, that these independent calculations show such a slight difference makes it probable that the results are correct for the purpose of our argument, so long as it is admitted that the Egyptian calendar was never readjusted during each or any "Sothic cycle" of 1460 years.[2] This is the one disturbing factor which would introduce a margin of error sufficiently large to vitiate the whole argument. We have, however, no hint of such a thing in the Egyptian records; and it must be remembered that the numerous recorded eclipses of Greek and Roman times that are dated by the Egyptian calendar year, all work out on the hypothesis that no readjustment existed.

We turn, then, to our second test. How far does the Berlin dating fit in with the facts of Egyptian history so far as we know them? Does it fit them better or worse than the old traditional dating, or the counsel of despair of Petrie's *Sinai*? The differences, and they are sufficiently huge, lie in the length of time allowed from the beginning of the XIIIth to the beginning of the XVIIIth Dynasty, which is 208 years on one dating, 985 on another, 1666 on the third. Do we really know so little about

[1] See pp. 221–6.

[2] As suggested by T. Nicklin in *C.R.* xiv. 1900, pp. 144–8. See further Appendix A, which discusses the question as to the latitude at which the observations of "Sothic Risings" were taken. This difficulty, which is not as serious as it appears, was raised by C. Torr in *M.M.* and *C.R.* 1897, pp. 78–80.

the events that happened during these Dynasties that it can be a matter of discussion as to whether 208 years or 1666 is the proper time to allow for them? It is of course true that in prehistoric times, and in the absence of written records, such ignorance might be expected. In Egypt, however, the period could not fairly be called prehistoric, and we possess written records. Not only have we numerous monuments, but also the so-called Turin Papyrus, a Book of Kings written in the XVIIIth Dynasty, whose fragments, wherever we can rely with safety on their order and meaning, offer us valuable evidence. The strange thing about this great gap in Egyptian history is that not only is a great deal known about the period that comes after it, but a great deal also about the period that precedes it. It is not merely that the fragments of the Turin Papyrus happen to be better preserved for the XIIth Dynasty than for those that come after it, but that the monuments tell us volumes about the XIIth Dynasty, and little or nothing about all that comes between it and the XVIIIth. It is significant that Petrie agrees with Meyer, not only in the date at which he begins the XVIIIth Dynasty, but in the 160 and 213 years that he assigns to the XIth and XIIth.[1]

When we discover, therefore, that hardly anything is known about the gap, that it has practically no "content," our first impression is that it cannot be a long one. None the less it would be at once granted by any candid friend of the Berlin dating that the 208 years it assigns to it are a surprisingly small number, and form a minimum lower than that which any *a priori* theory would have dared to suggest. We have to fit into it the whole period of foreign domination, the dark days of the "Shepherd" or "Hyksos" kings, that were to the imagination of later Egypt what the Babylonian Captivity

[1] Petrie, *Hist.* vol. i. 1903, pp. 124, 147, 251; *Sinai*, 1906, p. 175; Meyer, *A.P.A.* 1904, p. 68, etc.; Breasted, *Hist.* 1906, p. 599.

was to the Jews, or the Danish Terror to early England. Over and above, too, these Hyksos invaders, the Turin Papyrus, whose opinion weighs as much with the Berlin school as with Petrie,[1] gives us the names of well over a hundred native Egyptian kings.[2] One of the Hyksos kings, an Apophis, has his thirty-third year mentioned on a mathematical papyrus now at the British Museum, and other totals known from monuments leave a perilously small margin for the remainder.[3] Their enemies believe that the Berlin school lives on a volcano, and that the discovery of new kings, such as those made by M. Legrain at Karnak,[4] may any day blow them into space. The epitomes, too, that we possess of Manetho, an Egyptian priest who wrote his history in the time of the Ptolemies, are dead against the Berlin view, and give totals that are nearly as long as those of Petrie's new dating. On the other side it is urged that, where we can test him, Manetho is frequently, or, according to Breasted, " in the vast majority of cases," [5] proved to be wrong ; even for the XIXth Dynasty, for instance, which was much nearer his own time, his totals have admittedly been proved too high.[6] Manetho, it is argued, merely found the names of a vast number of kings, and assigned them reigns of *a priori* average length, ignoring the peculiar conditions of the time. The time was one of chaos, when Pretender after Pretender struggled for supremacy, and foreign usurpers were faced by mushroom native dynasties ; an anarchy like that which followed in the Roman Empire on the death of Commodus, or the 118 years of later Egyptian history from 750 to 868 A.D., in which there were 77 Moslem Viceroys.[7]

[1] Meyer, *op. cit.* p. 109, n. 2 ; Breasted, *A.R.* vol. i. 1906, p. 38, etc.

[2] Petrie, *Sinai*, p. 167.

[3] Breasted, *Hist.* pp. 221, 212.

[4] *S.A.E.* vi. 2, 1905, pp. 130–6.

[5] *Hist.* p. 23.

[6] Petrie, *Sinai*, pp. 171–3.

[7] Breasted, *Hist.* p. 214.

The historical strength of the Berlin position lies in the fact that this is probably true, so far as our evidence can guide us. A Theban king of the XVIIth Dynasty seems to have been a vassal of one of the Hyksos kings, an Apophis ; [1] another Theban king uses language that seems to imply that there were other partial or competing kings in Egypt by his side.[2] When the Turin Papyrus gives us the length of the reign of one of its many kings it is, according to Breasted, occasionally two or three years, generally only a year, once no more than two months and a few days.[3] Its general method, too, was to give kings the gross length of their reigns when they were individually mentioned, whether or no they overlapped or were contemporary. The individual figures for the XIIth Dynasty, for which it is entirely preserved, come to 228 years, but the grand total that it itself gives is only 213.[4] If we had its grand total for the great gap, we might here too have a shrinkage, and on a much more extensive scale. This line of argument fits in with the general fact already mentioned, that there are practically no events to insert as happening in the great gap, while we know a great deal of the periods on either side of it. Breasted remarks of Petrie's new dating that "it involves the assumption that nearly 1500 years of history have been enacted in the Nile valley without leaving a trace behind. It is like imagining that in European history we could insert at will a period equal to that of the fall of Rome to the present." [5]

When we turn, again, to Egyptian art, these general historical considerations receive considerable support. Several years before the discovery of the Kahun Papyrus,

[1] Breasted, *Hist.* p. 221 ; Petrie, *Hist.* ii. 1904, pp. 17–9.

[2] The original document in Breasted, *A.R.* vol. i. No. 779, hardly warrants the definite statement of *ibid. Hist.* p. 212.

[3] *Ibid. Hist.* p. 213. But cp. Petrie, *Hist.* i. pp. 202, 206, 227.

[4] Breasted, *A.R.* vol. i. p. 42 ; Petrie, *Hist.* i. p. 147.

[5] *A.R.* vol. i. p. 36, n. a.

Mr. Henry Wallis, an authority on the Pottery of the Italian Renaissance,[1] who came to the study of Egyptian art from the purely artistic standpoint, pointed out[2] that much too much time was demanded on the traditional dating from the point of view of artistic development. He found no indication in the art of the XIIth and the art of the XVIIIth Dynasty that there had been a long process of development between them ; nor did he believe that the absence of development could be explained away by the theory of intervening centuries of barbarism. He argued that when Egypt did in fact become barbarous at the end of the Roman period, its art became barbarous also ; and that whenever, in such cases, a renascence follows a dark age, it comes into being gradually, from the seeds of the old skill and culture that lie dormant in the original population. It does not burst forth full blown, exactly on the same level as that on which it stopped centuries before.

Whether or no other art critics will agree with Mr. Wallis's remarks so far as they apply to work which is undoubtedly XIth or XIIth Dynasty, such as the Temple of the XIth Dynasty Mentuhetep III. at Deir-el-Bahari,[3] it certainly applies to much of the Egyptian art that is generally associated with the XIIth and XIIIth Dynasty, and especially to that part of it which is equated with Minoan remains and is of importance in the present discussion. Professor von Bissing, one of the leading living authorities on the subject, believes that much that has been hitherto loosely called XIIIth or even XIIth Dynasty work can in reality only be safely dated as "Middle Kingdom," and may belong to the XVth or even the XVIIth Dynasty. The obscurity of the great gap has meant ignorance as to the character of its art, and as to how far XIIth Dynasty types

[1] *Italian Ceramic Art*, 1902, etc.
[2] *A.A.E.* 1895, pp. xv–xvii.
[3] H. R. Hall in *J.H.S.* xxv. pp. 331–7.

survived in it. He believes, for instance, that the Diorite statue found under the Central Court at Knossos and placed by Mr. Evans in Middle Minoan III. need not be contrasted with the Cartouche of King Khyan as XIIIth with XVth Dynasty work,[1] but may itself be XVth or later. Though, too, he agrees with Petrie that the pottery found at Kahun is imported Kamáres ware, he maintains even more strongly than he did seven years ago [2] that the environment in which it was found may be and probably is much later than the XIIth Dynasty; the pottery in particular with which it is associated he now definitely places under the Hyksos domination. In regard to the pictographic seal stones that Mr. Evans equates with the XIIth Dynasty, he holds that, although they cannot be earlier, they may well be later.

It is conceivable that we have here found a point where Cretan evidence may legitimately be used [3] against the Berlin dating of the XIIth Dynasty, so long as, with von Bissing, we dissociate from it Middle Minoan II. and III. and place the latter nearer the XVIIIth Dynasty than the XIIth. It has already been felt to be a difficulty in Mr. Evans's scheme [4] that some of the Cretan seals that are most distinctively of this pictographic type are not found with Kamáres pottery or any other remains of the great polychrome period, but form part of the deposit of Hagios Onuphrios, the bulk of which, with its high-spouted vases and rude idols, is naturally classed by Mr. Evans as Early Minoan III.[5] A vase with red and white streaks on a dark ground belongs

[1] See p. 67.

[2] *S.H.* 1900, pp. 20–7. His later views were given to me in two letters dated January 1907, which he has kindly permitted me to make use of.

[3] So far as I am aware, this has not yet been done, though the argument is a direct inference from Von Bissing's position.

[4] By H. R. Hall in *J.H.S.* xxv. p. 321, note 2.

[5] *E.C.* p. 6; *J.H.S.* xiv. pp. 325–7.

to a slightly later interment, that may be assigned to the beginning of Middle Minoan I.,[1] but it is highly improbable that the seals and nothing else must be assigned to the still later Kamáres period. If we accept the Berlin dating, this is the only explanation, as it would be scarcely possible to maintain that Middle Minoan I. was only beginning in B.C. 2000. On Mr. Evans's scheme we are on the horns of a dilemma; for the only other alternative is that within a mile of the splendid porticos that were rising on the west façade of Phæstos there lived a community that was still in a state of civilisation centuries and centuries behind. On Von Bissing's theory the seal stones of the Hagios Onuphrios deposit may happen to be real XIIth Dynasty work, while the links that connect Egypt with Middle Minoan II. and III. may be assigned to the four or five centuries that immediately precede the beginning of the XVIIIth Dynasty.

Apart from this special question of the Hagios Onuphrios deposit, Von Bissing's suggestions, placing Middle Minoan III. as they do nearer to the XVIIIth Dynasty than the XIIth, are of little importance if we accept the Berlin dating, where the whole gap between them is only 208 years; they are of vital importance to those who cling to the old dating; and they are a haven of safety for those who agree with Professor Petrie in accepting the Berlin astronomy and rejecting the Berlin history, but yet cannot follow him in placing an interval of fifteen hundred years between the art of Middle Minoan III. and that of the "Palace Style" of Late Minoan II. They may allow themselves without fear of heresy to notice how similar in glaze and technique and sometimes even colouring is the pale green porcelain of the Middle Minoan III. Temple repositories[2] to some of

[1] See p. 52.

[2] *B.S.A.* ix. Plate III. and figs. 51 to 53b, pp. 73, 74. See p. 20.

the faïence that we find in XVIIIth Dynasty Egypt, not only in the Deir-el-Bahari of Thothmes III., but even the Tell-el-Amarna of Amenophis III. and Akhenaten.[1] They may allow the glazed bowls of the XVIIIth and even the XIXth Dynasty, in which an open lotus enfolds the whole outside of the bowl with petals that spread from their common centre at the base,[2] to suggest to them that some direct ancestor of theirs, separated by no gulf of two thousand years, inspired the Cretan artist whose water-lily cup is the *chef d'œuvre* of the Kamáres period.[3] They may admire the naturalistic treatment of plant life as we see it on the early XVIIIth Dynasty glazed ware found by Petrie at Serabit,[4] and venture to connect it, not only with the reed and grass designs of Late Minoan I.,[5] but with something that is still more similar, the vine and willow of the porcelain plaques discovered in 1902.[6] Yet these clearly belong to the same factory as the Middle Minoan III. porcelain that was unearthed in the Temple Repositories the following year.

We have now reached our final point, the time needed for the development of Cretan art on its own merits. It is here somewhat surprising to find Professor Petrie claiming Mr. Evans's support in favour of his new dating.[7] Now it is true that Mr. Evans has, up to the present, been disinclined to accept the Berlin dating, and has considered that it does not allow time enough for the changes that can be traced in the shapes of swords, and scripts, and vases between Middle Minoan II. and the last days of the Palace in Late Minoan II. It must be noticed, however, that the time required may be gained

[1] British Museum Table Case, Nos. 21654-5, 21665-6, 21673-4.
[2] Wallis, *E.C.A.* 1898, Plate VI. *ibid.* 1900, Plate IV.
[3] See p. 61.
[4] *Sinai*, fig. 156, p. 151, Nos. 6 and 7.
[5] *Phylakopi*, Plate XIX. 9 and 10. See below, p. 85.
[6] *B.S.A.* viii. fig. 10, p. 21. See above, p. 20.
[7] *Sinai*, p. 173.

by placing the ruin of the Palace later as well as by placing its beginnings earlier; and that Mr. Evans already definitely places it in B.C. 1450, fifty years later in the XVIIIth Dynasty than he did two years ago, and implies that all that he insists on is that the end must have come before 1400.[1] In the second place Mr. Evans's latest dates for the Middle Minoan Periods as shown on the wall cases of the Ashmolean Museum at Oxford, are not earlier than Berlin by nearly so many centuries as they are later than Sinai. A system in which Middle Minoan II. ends at 2200, and Middle Minoan III. carries us on to 1800, is all the difference in the world from one in which the XIIth, XIIIth, and XVth Dynasties begin in 3459, 3246, and 2533. It would not be surprising, too, were Mr. Evans to bring his dates down lower still, if we can infer anything from some lately published arguments of Dr. Mackenzie's, developed at present in quite a different connection, but certain in time to point their obvious moral.

While seeking support for his theory that within the life of the Palace at Knossos a Carian civilisation is superseded by an Achæan, Dr. Dörpfeld has recently suggested that both at Knossos and at Phæstos there were two different types of Palace, the one later than the other.[2] Dr. Mackenzie, as Dr. Dörpfeld would himself probably now admit, has decisively shown that he is wrong.[3] It is not the case, either at Knossos or at Phæstos, that a Middle Minoan Palace, in which living-rooms are grouped round a great Central Court, is superseded by a Late Minoan Palace, in which the centre point is no longer a Court,

[1] Contrast the Cases in the Ashmolean, in which L.M. II. is given as "1600 to 1450" with *E.C.* p. 10, where 1500 is given as its final point. See also *P.T.* p. 131, where he says that the Palace Period "can hardly be brought down later than the close of the fifteenth century."

[2] *Ath. Mitt.* xxx. 1905, pp. 257–97.

[3] *B.S.A.* xi. pp. 181–223.

but a Hall or Megaron. Dr. Dörpfeld's mistake is partly a piece of bad fortune. Both the Italian and English excavators had observed that the West Court at Phæstos, with the theatral steps to the north of it, and the one-column portico on its southern side,[1] were not organic parts of the Palace as we see it, but belonged to an earlier building to which the portico gave entrance. There was no doubt that this West Court was covered up before the building of a great flight of steps that now lies to the east of it. This flight of steps leads up still farther east to a long landing which, with its remains of walls and column bases, forms one of the most imposing features of the Palace as we now see it.[2] Both the Italian excavators and Mr. Evans had frequently called this great landing a Hall or Megaron,[3] and in their use of the term the identification was of no particular importance, as they did not suggest that it differed in construction from the usual type of Minoan hall as found at Knossos. Dr. Dörpfeld, however, unfortunately for himself, ignoring the Minoan system of lighting rooms by means of an unroofed area at the back that served as a kind of huge window,[4] and laying stress on an apparently different arrangement of the pillars, argued that the Megaron was not of the earlier Knossian type at all, but resembled partly, if not completely, the Megara of Tiryns and Mycenæ. It is serious therefore for Dr. Dörpfeld's theory that Dr. Mackenzie has made the discovery that

[1] Nos. 1, 4, and 3 on the plan of the Palace of Phæstos, originally published in *Mon. Ant.* xiv. Plate XXVII., and reproduced in Dörpfeld's article as Plate X., in Mackenzie's as Plate V. See p. 58.

[2] Nos. 66 and 67 + 68 + 69 + 69′ in the Phæstos Plan referred to above. Dörpfeld curiously ignores in his figuring the difference between 69 and 69′. Quem Deus vult perdere. . . .

[3] E.g. *Mon. Ant.* xii. Plate IV., xiv. Plate XXX.; *B.S.A.* vii. pp. 24, 116, viii. p. 32.

[4] No. 69′ in the Phæstos Plan. For such light-wells, see *B.S.A.* viii. figs. 29, 30, pp. 56, 57.

the landing in question is not a Megaron at all, of either a Knossian or Tirynthian type, but only an elaborate state entrance to the Later Palace. In it a covered porch and vestibule were backed by a vertical shaft or "light-well," which served as a great window both to the vestibule itself, and to the corridors, staircases, and landings that connected it with the upper stories.

Dr. Dörpfeld, however, has not only been peculiarly unfortunate in writing in pre-Mackenzian days about the Phæstos "Megaron." He has also been the victim of a gross piece of carelessness on the part of the Editor of the *Comptes Rendus* of the Archæological Congress.[1] The official summary of the paper in which Mr. Evans outlined his system of Minoan dating completely perverts it, and in particular applies the term Late Minoan III. with a light-hearted promiscuity for which it is hard to find a parallel in the history of learning. It is to this, if we are to judge from certain phrases in Dr. Dörpfeld's article,[2] that we are to attribute the fact that he has misunderstood the English excavators in regard to the stratification of Knossos. He has wrongly imagined that the West Court of Knossos and a great part of the whole west wing belonged to an earlier building, contemporary with the West Court of Phæstos, and that they were superseded and partly covered over by a later structure, contemporary with the supposed mainland Achæan type of Megaron at Phæstos that is now proved to be no Megaron at all. It is unnecessary for us to go into

[1] *C.R.A.C.* 1905, p. 209. Mr. Evans has since sent out a corrected version, which is quoted in this book as *E.C.*

[2] *Ath. Mitt.* xxx. 1905, p. 295, where views are attributed to Mr. Evans that are grotesquely different from the real ones; *e.g.* he is made to place the "younger Palaces" of Knossos and Phæstos in "Late Minoan III., or the Period of Partial Re-occupation"! J. L. Myres's brief but severe criticism in *Y.W.C.S.* 1907, p. 19, does not allow for the corrupting influence of the *C.R.A.C.* nor for the fact that Dörpfeld was after all only following in others' steps in talking of a "Megaron."

the arguments by which Dr. Mackenzie shows that he has thus ignored the vase evidence of the floor deposits, and failed to see that the stratification on the top of the hill at Knossos was from the nature of the ground less mechanical, and therefore less simple, than that at Phæstos. We are, for the purposes of the present chronological argument, only interested to show that Dr. Mackenzie, in proving his point against Dr. Dörpfeld, brings out forcibly what he himself calls "the fundamental unity and continuity of architectural style" [1] that we find both at Phæstos and Knossos for the whole period with which we are dealing, from Middle Minoan II. to the end of Late Minoan II. It is not merely that the later builders at Knossos laid their foundations, from the West Court to the Central Court, at practically the same level as those of their predecessors, and worked them into their own system of construction, instead of building at a higher level, as had been done at Phæstos.[2] That, though effective as an argument against Dr. Dörpfeld, teaches us nothing in the present connection. What interests us is that, wherever we can point to a particular feature in construction or design that belongs to an early phase of one of the two Palaces, we can at once parallel it by a similar feature occurring in the latest phases. The concurrent use of both limestone and gypsum; the low gypsum benches that run along the foot of the walls; the scheme of lighting by means of vertical shafts or light-wells; the theatral area, and the steps on which the spectators watched; even small points such as the structure of a bath-room or a porter's lodge; one after the other, they are all shown to be the same from first to last.[3] Even where the Knossos evidence does not take us back farther than Middle Minoan III., the Middle Minoan II. West Court of Phæstos enables as to connect it with the still earlier

[1] *B.S.A.* xi. p. 212. [2] *Ibid.* p. 183.
[3] *Ibid.* pp. 189, 190, 211, 210, 212, 211, 193.

period. Dr. Mackenzie's arguments really amount to this, that a man of Late Minoan II. not only built on the same architectural principles, but lived in the same kind of rooms, as his ancestor of Middle Minoan II.

Is it probable that this means two thousand years? Are even one thousand as probable as six hundred? It may be granted that, in a lifeless age, architecture and house construction might maintain the same form for an indefinite period; but in an age which *ex hypothesi* is alive and moving in all the other arts, and makes their many changes the basis of its claim for length of span, does not this marking time in the 'master art' weaken the force of such a claim? Even if we lay stress on the religious aspect of the Cretan palaces, we can find no analogy that is against us in the history of Western Europe, from the first Doric temples of Corinth or Selinus to the imitation Gothic or Byzantine churches of to-day. Even in religious art permanence of type for very long periods means, either deadness, or an archaism that presupposes intervening changes. When we consider that the religious elements in the palaces were after all subsidiary, and that in the main they were houses to live in, our case becomes stronger still.

Even a thousand years is a huge interval of time; and leaving out of sight the special argument we base on the permanence of the Minoan Palace, we have a right to ask whether the changes in the other arts, in pottery, frescoes, swords, and writing really demand so long a period. The change from pictographic script to linear is the only point that gives us cause to doubt: and even here the ink-written linear inscriptions of Middle Minoan III.[1] show that the gap was bridged before that period was reached. In regard to the other arts the high level reached by Crete takes it out of the range of primitive or barbarous analogies, and makes it fair to apply to it

[1] See pp. 64–5.

those taken from the later history of the West. We shall find that in dark ages Art may hang fire almost indefinitely, so that, *a priori*, no interval of time can be called too long for it. It is when Art is once on the borders of the light, when it is first possible to call it good, that the quick changes come, jostling each other; and we have hardly had time to count them when promise has passed, and we are at the short moment of equilibrium that in art, as in nature, we call maturity. We may take the analogy of classical Greek sculpture, and notice that it took only two hundred years to rise from the Medusa Metopes of Selinus to the Frieze of the Parthenon, and one hundred more to pass through Praxiteles and Scopas to Lysippus and "the beginnings of Late Minoan III." Or we may turn to the history of Gothic Architecture in England, and show how Norman passed through Early English into Decorated in little over two hundred years, and how even the stiff "Palace Style" Perpendicular passed away in less than three hundred more. Or we may judge by the Italian painting of the Renascence, and count two hundred years from Cimabue to Botticelli, and only one hundred more till Raphael and Leonardo and Michael Angelo and Titian are all gone, and we are wondering whether Paolo Veronese is artist enough to paint a "Cup-bearer."

οἱ μὲν γὰρ οὐκέτ' εἰσίν, οἱ δ' ὄντες κακοί.[1]

Are six hundred years too little for the bloom of Minoan Art, on its own merits, and apart altogether from the Berlin astronomy?

[1] Aristophanes, *Frogs*, 72.

CHAPTER VI

THE PALACE STYLE AND THE SACK OF KNOSSOS

THE covering up of a complex of apartments on the north-east, and the simultaneous submergence of many floor deposits,[1] mean that Middle Minoan III., like the two preceding periods, was closed by a general catastrophe. The Late Minoan I. that succeeds it is the period of many of the masterpieces of Minoan art already described.[2] The villa of Hagia Triada, with its steatite vases, cat and bird fresco, and sarcophagus with the sacrificial procession, is to be placed here. So probably is the royal draughtboard of the palace of Knossos. The linear writing of Class A is now in regular use. Bronze swords have succeeded the daggers whose blades have been gradually lengthening during the Middle Minoan period.[3] Naturalistic designs are still dominant, not only in the carved work of Hagia Triada, which gives us such vivid pictures of human life in peace or war, but in the flower and shell designs of the painted vases. The white on dark of the last period has now given place to a dark on light, and we find brown or red designs on a ground that varies from buff to a yellowish pink. A good example is a tall slight " filler " or " strainer " from Zakro,[4] with its shell and sea anemones, and an almost identical vase, made probably by the same artist, from

[1] See p. 62 ; *J.H.S.* xxvi. p. 267.
[2] In Chaps. I. and II. [3] *E.C.* p. 9 ; *P.T.* p. 105.
[4] *J.H.S.* xxii. Plate XII. No. 1.

Palaikastro.[1] There is a blending of the two styles in a still more beautiful vase from the Lakkos or pit at Zakro,[2] on which a delicate design of waving water-lilies is painted in white upon a red-brown slip.[3] The curious point about this white design is that it was painted after the rest of the vase, with its red-brown ornament upon a pinkish clay, had already been fired and glazed; itself it was never fired, glazed, or varnished, but, as its discoverer, Mr. Hogarth, tells us, can be removed with the lightest touch of the fingers.[4] Another simple design of the period is that of reeds or grasses, such as are found on the graceful "flower-pots" from Phylakopi in Melos,[5] in which the small hole pierced through the base suggests that this is not only a convenient name for describing a shape, but that they were really used as pots for plants.[6] Phylakopi indeed shows other close connections with the art of this period, as it did with that of its predecessor,[7] and the latest elements in the second city are contemporary. The Shaft graves at Mycenæ, too, begin in this period, and stretch on into the next. It is the first time that the word "Mycenæan" can be legitimately introduced into our story.

With Late Minoan II. we reach the great architectural period of Minoan art—the period of the Throne Room and the Basilica Hall of the Royal Villa, the period of the great scheme of fresco wall decoration which survives to us in the Cupbearer and the groups of spectators watching the Palace sports. Whole areas were covered with stone carvings or painted plaster. The plaster-

[1] *B.S.A.* ix. fig. 10, p. 311. Dawkins, *ad loc*, p. 310, n. 1, points out that Hogarth was mistaken in saying (*J.H.S.* xxii. p. 333) that the base of the Zakro vase is not pierced. For a description of these strainers, see p. 91.

[2] See p. 26. [3] *J.H.S.* xxii. Plate XII. No. 2.

[4] *J.H.S.* xxii. p. 336.

[5] *Phylakopi*, Plate XIX. Nos. 9 and 10.

[6] But see *ibid.* p. 118. [7] See pp. 14, 63, 149, 179.

work varied from the sculpturesque high relief of the Bull's Head,[1] and the low modelling of the King with the Peacock Plumes,[2] to the more usual flat-surfaced frescoes.[3] These were either life-sized, like the Cupbearer, or miniature, like the scenes from the Palace sports. The two kinds of fresco seem to have been freely used side by side on the same wall, and were framed in decorative designs of wonderful variety, in which lozenge and zig-zag and fish-scale and tooth and dentil ornament played their part along with triglyphs and rosettes and every kind of spiral. Even the decoration of the most characteristic vases of this period shows the influence of the architectural spirit, their rosettes and conventional flowers being imitated from the fresco borders and stone friezes of the Palace. Naturalism, where it survives in pottery,[4] borrows its flowers and birds and fishes from the scenes depicted in the frescoes themselves, just as the more conventional style borrows from their decorative framework. On all vases alike the last traces of polychromy or of a monochrome light design on a dark ground have disappeared. We have now what used to be called the "best Mycenæan" style of dark on light; the design being of a lustrous glaze varying from red-brown to black according to the success with which it hides what is beneath it; while the ground is a buff clay slip polished by hand on the terracotta body of the vase.[5]

Of the conventional style there is a splendid example from the Royal Villa, nearly 4 feet high, with the triple sprays and buds of a papyrus plant;[6] while in a vase from the second interment in the Isopata tomb, the imitation masonry and triglyphs of the miniature

[1] See p. 19. [2] See *ibid.*

[3] T. Fyfe in *J.B.A.* x. 1902, pp. 107–31, Plates I. and II. figs. 1 to 81.

[4] *B.S.A.* ix. fig. 72, p. 117, vii. p. 51; see also *J.H.S.* xxiii. fig. 11, p. 195. [5] Mackenzie in *J.H.S.* xxiii. p. 194.

[6] *B.S.A.* ix. fig. 88, p. 139.

frescoes are taken bodily over.[1] The conventional flower design of another beautiful amphora, 2 feet high, found close to it, supplies a link between Crete and the Mycenæan mainland.[2] Fragments of vases found in chamber tombs at Mycenæ,[3] and Vaphio,[4] as ingeniously pieced together by Mr. J. H. Marshall, show a similarity of shape and design and colouring that points without a doubt to a common origin. It is interesting to notice that Professor Tsountas found the Vaphio fragments at the same time and place as the famous Gold Bull Cups, but they lay unpublished in the Athenian Museum till the Steatite vases from Hagia Triada suggested to Mr. Marshall that here too we might have an importation from Crete.

The chamber tomb at Mycenæ, also excavated by Professor Tsountas, suggests a point of contact of another kind. It contained a sword-hilt and pommel of white faïence,[5] which must belong to the same type of sword as the fragment of a crystal hilt found in the Palace, and the splendid ivory and agate pommels from some of the earliest tombs in the Zafer Papoura cemetery.[6] The inference that these graves are contemporary with Late Minoan II. is confirmed by a small onyx plaque found in the Throne Room, representing in relief like that of a cameo gem a short sword with horn-shaped guards like those of the long sword in the chieftain's grave.[7] Each warrior seems to have had two of these swords, the one a rapier, a good 3 feet long, the other a 2-feet short sword, a kind of lengthened dagger that was used, like the rapier, for thrusting and not for cutting. The short

[1] *P.T.* fig. 144, p. 159.

[2] *Ibid.* Plate CI.; cp. fig. 143, p. 158.

[3] *J.H.S.* xxiv. Plate XIII.

[4] *Ibid.* xxiii. fig. 10, p. 192; see *B.S.A.* vii. p. 51.

[5] Bosanquet in *J.H.S.* xxiv. pp. 322–4.

[6] *P.T.* p. 110, and figs. 58, 59, 66, 110, 112, pp. 56, 57, 62, 106, 110.

[7] *Ibid.* p. 106. In *B.S.A.* vi. p. 41 Evans calls it "agate," but we presume that his later "onyx" is correct.

sword from the chieftain's grave is especially elaborate, with its translucent agate pommel and its gold-plated hilt. The lion and goat design [1] engraved on it reminds us of one of the Vaphio gold cups. Just as there we have three scenes in the drama of the trapping of a bull by means of a decoy cow—first the bull attracted and starting to the rendezvous, secondly the bull by the cow's side, and thirdly the bull, like Samson, trapped and in the hands of the Philistines [2]—so here we have, in successive scenes, first the *Agrimi* startled and springing away, and then the lion triumphant at the end of the chase, with one paw on the panting beast's hindquarters, and the other raised to bring it down. Though the rapier and dagger are found side by side in more than one of the undisturbed graves, such as the chieftain's,[3] yet we do not find them worn together on any of the representations of fighting that occur on works of art, and have no evidence as to how they were respectively used. We may mention, however, Mr. Andrew Lang's interesting conjecture that in private duels the long shield may have been discarded, and the dagger carried in the left hand for parrying, as in the Elizabethan age, or the France of Henri III.[4]

The conclusion which Mr. Evans has only gradually arrived at,[5] that some of the Zafer Papoura graves must be placed within this period, throws light on a puzzling question connected with what are called "false-necked" or "stirrup" vases. The latter name, reproduced in the German "Bügelkanne" and the French "vase à étrier," is given because of the two handles that rise from either side and join at the top of the neck, thus forming what is something like a pair of stirrups. The

[1] *P.T.* fig. 59, p. 57.

[2] *S.S.* App. Plate III. The interpretation is that given by Evans in the Ashmolean cases. See pp. 33, 136–7.

[3] *P.T.* figs. 53, 65, pp. 53, 61, also pp. 112–3.

[4] *Athenæum*, July 21, 1906.

[5] Cp. *B.S.A.* x. p. 4 and *E.C.* p. 10, with *P.T.* pp. 106, 131, 133.

former name, which is a truer differentia, comes from the fact that the top of this neck, which is flanked by the stirrups, is closed, and does not form the mouth of the vase at all. The liquid is poured from a raised spout, also on the top of the vase, but separated from the neck and handles. The type presumably developed from a vase with two stirrup handles on each side of an open mouth. With large heavy vases it was a good arrangement to secure " the straight pull " for carrying ; but the difficulty of pouring that resulted from the mouth being so near the hands that held it led to the substitution of a spout some distance away, like that on our own kettles.[1] The transition may have been easier from the analogy of the lop-sided " duck " vases of Phylakopi and elsewhere, with their slanting spouts ; with the removable lid that probably existed in the original type they must have looked exactly like an earthenware kettle. The suggestion,[2] however, that the false-necked vase is directly derived from even this earlier type of " duck " vase is improbable.

This kind of vase, which on non-Cretan sites is perhaps the form most closely associated with Mycenæan remains, and in Crete itself is found in early strata at both Gournia and Hagia Triada, has been conspicuous by its absence in the Palace of Knossos. Except for a few fragments, only one such vase, and that from the Royal Villa,[3] has been found during the whole life of the Palace down to the end of Late Minoan II., although, as seen in our Strata Section (Plate III.), it suddenly becomes the prevailing type in the period of partial

[1] This point of convenience is well illustrated by the slanting open mouth of the example from Palaikastro, *B.S.A.* xi. fig. 12a, p. 281, which Dawkins places also in *L.M.* ii.

[2] Made by Dümmler in *Ath. Mitt.* 1886, p. 37. Our view is not quite that of Edgar in *Phylakopi*, pp. 89, 90, 135. See *ibid.* fig. 74, p. 90, and Plate IV. Nos. 6, 8, 13. Also see above, p. 54.

[3] *B.S.A.* ix. figs. 87a, 87b, p. 137.

reoccupation in Late Minoan III.[1] The discovery, however, of magnificent false-necked vases in the earliest tombs at Zafer Papoura, with decoration which is clearly taken over from metal-work, and resembles that of the bronze vessels of the same period,[2] suggests an explanation. From Middle Minoan III. to Late Minoan II., false-necked vases may at Knossos have been almost confined to metal-work, and their absence therefore be due to the looting that has caused the disappearance of practically all metal objects from the Palace. That this, and not the non-existence of the type, is the true explanation, is confirmed by the fact that it is depicted in the inventories on the clay tablets found within the Palace.[3]

The conventional element to be seen in the designs of the Palace Style of pottery, as Mr. Evans calls it, marks also contemporary work in stone and bronze. One of the magnificent bronze vessels has a special interest in bearing a close resemblance to a metal ewer figured on the XVIIIth Dynasty tomb of Sen-mut as offered by a narrow-waisted Keftian.[4] Of the stone-work Mr. Hogarth truly says that we can only admire, but not explain, the technical skill with which the hard material was worked, even in the inside of vessels with only the narrowest of mouths, in an age of soft bronze tools.[5] In a room on the east of the Palace we seem to have one of the workshops where the stone was carved. On the floor, one beside the other, stood two amphoræ of veined marble-like limestone; one a huge vase 2 feet high and more than 6 feet round, finished and perfect, with two splendid spiral bands;[6] and the other a smaller vase, of the same type, but only just roughed out of the

[1] *E.C.* pp. 10, 11. Mackenzie's statements in *J.H.S.* xxiii. p. 201, must now be modified, though only slightly.

[2] *P.T.* figs. 115, 116, pp. 121, 122. [3] *Ibid.* p. 121.

[4] See *B.S.A* ix. fig. 76a, and also figs. 76b to 85, pp 122–9, viii. figs. 1, 2, 3, and 7, pp. 171–3, and x. figs. 1, 2, pp. 154, 156.

[5] *Cornhill*, March 1903, p. 329.

[6] *B.S.A.* vii. fig. 30, p. 91.

block. It was not finished when the great catastrophe came.

A brilliant alabaster marble was worked to make a Triton shell,[1] and the head of a lioness with jasper eyes, which may have served as a spout for a fountain.[2] The great 64-pound weight, carved with the coiling tentacles of an octopus, which we have already mentioned in relation to the Imperial weights and measures, was made of purple gypsum ;[3] as also was a tall lamp pedestal, with its palmettes and lotus-buds.[4] Variegated marble, too, seems to have been a favourite material in the Palace for the graceful fillers or strainers that were so common in the Late Minoan periods,[5] tall funnel-shaped vessels with a perforation at the bottom through which liquid poured into another vessel below. The common type may have been merely used for pouring wine or water into narrow-mouthed vessels like the false-necked vases, which must have been hard to fill ; but this kitchen or store-room use hardly accounts for the more magnificent specimens. When describing an Egyptian vessel of similar shape, but of glazed blue faïence,[6] Mr. Henry Wallis remarks that on one of the banqueting scenes in a fresco from Tell-el-Amarna King Akhenaten holds a bowl into which a slave pours wine through what is clearly a strainer. As such a custom is not usually represented in Egyptian art, he suggests that perhaps some particular wine needed straining, as in Sicily to-day the grape-skin and stones are often left in the wine of the

[1] *B.S.A.* vi. p. 31. [2] *Ibid.*

[3] See p. 15.

[4] *B.S.A.* vi. p. 44.

[5] Five of marble, two of them fluted, are represented in the Ashmolean. Seventeen of pottery are mentioned from Palaikastro by Dawkins in *B.S.A.* ix. p. 310. For the Zakro example, see above, p. 84.

[6] *E.C.A.* 1900, fig. 18, p. 10 (= Hall, *O.C.G.* fig. 53, p. 186). It is in the British Museum, Egyptian Room, Wall Case 150, No. 22731.

country till it is brought to the table. If we can imagine that there was a fashion for something like undecanted vintage port for the royal table, it is possible the suggestion explains the prevalence of the type of vase at a particular period. It is a strainer that is carried by the Cupbearer, though here, perhaps, it is not of pottery, nor even of fluted marble, but of silver mounted with gold.[1]

It should be noticed that though the decorative instinct which dominates this period shuns naturalistic designs, and can use even miniature fresco scenes in a bizarre, fantastic way as elements in a scheme of wall painting, the word "conventional" cannot be applied to the frescoes as a whole. The painters of the landscape and marine scenes found in the Queen's Megaron,[2] or of the life-size figure of the Cupbearer, did not allow their art to sink to a level where it would merely be subsidiary to the needs of wall decoration; the objects they represent have a value to them of their own, and their attempt to express nature is sincere and vigorous. The same is true of the sculptors who worked the magnificent series of life-size reliefs in hard plaster that is illustrated by the Bull's Head and the King with the Peacock Crown.[3] In this, its last great era, Minoan art was not decadent; it contained in itself no inherent over-ripeness which, apart from any disturbing influence from the outside, must have meant speedy deterioration. The hoard of clay tablets discovered in the first year of the excavations, and dating from this period, shows that its linear writing, called by Mr. Evans Class B, is more advanced than that of the preceding epoch. It was a civilisation which was still growing and developing that was given a sudden and crushing blow by the sack of Knossos.

What then is the date of the sack of Knossos, and

[1] *B.S.A.* vi. p. 16. One of exactly the same shape, but of pottery, is figured from Palaikastro in *ibid.* ix. fig. 9, p. 311.

[2] *Ibid.* viii. pp. 58, 59.

[3] See p. 19.

of the two great periods that preceded it? Though we have no Egyptian equation that at first sight seems so definite for Late Minoan I. and II. as the Cartouche of King Khyan for Middle Minoan III., the connections that we can establish are happily not the subject of such hot dispute. Though Late Minoan I. may have begun in the last days of the Hyksos domination, it is unlikely that it ended till the XVIIIth Dynasty had already well begun. There cannot be a great interval of time between the cat and bird fresco of Hagia Triada[1] and the fine Early XVIIIth Dynasty painting from Thebes, where wild ducks are hunted from a reed boat, and a cat, used as the falcon of the Middle Ages was used for higher-flying game, is trampling two wild birds and has its teeth in a third.[2] Mr. Evans at present gives the date as 1800 to 1600,[3] but it is possible that both beginning and ending should be fifty years later.

This would suit excellently for the beginning of Late Minoan II., which is contemporary, almost without a doubt, with the frescoes on the tombs of Sen-Mut and Rekhmara at Thebes. On these frescoes the Keftians and the men "of the isles in the midst of the sea" are represented as bringing their tribute to the Egyptian king.[4] Most Egyptologists are agreed that there is no difficulty, from the linguistic and historical points of view, in referring the name Keftiu, the "Back of Beyond" people, as used at this period, to the men of the Minoan world.[5] The tribute-bearers themselves are depicted differently from the beak-nosed Semites or the long-robed Asiatics, or the natives of Egypt

[1] See p. 31.

[2] British Museum, Egyptian Room, 37977 = Breasted, *Hist.* 1906, fig. 156, p. 418. [3] Ashmolean Cases.

[4] Breasted, *A.R.* 1906, vol. ii. No. 761, p. 295, n. b; H. R. Hall, *B.S.A.* viii. pp. 162–75, x. 154–7.

[5] Von Bissing *apud* Hall, *B.S.A.* viii. p. 165; Breasted, *Hist.* 1906, pp. 261, 338. Petrie, *Hist.* ii. pp. 118, 123, 157, is an exception.

itself ;[1] and with their narrow waists, rich girdled loin-cloths, gartered gaiters or buskins, and long flowing hair with the curls upon the forehead, represent, as faithfully as one nation can be expected to represent another, the men of Crete as we see them in Minoan art.[2] The vases, too, that they carry, as has already been mentioned, are of the shape and style of the great Palace period, and the ox-heads and ingots that form the rest of their tribute can be brought into relation with the monetary system of the Minoan Empire.[3] Although, however, we can agree with Mr. H. R. Hall in regard to these resemblances, there is no need to follow him, as Mr. Evans does, in the date of 1600 to 1550 that he assigns to the frescoes in question.[4] For such an early date Mr. Hall is, we believe, alone with Dr. Budge, as against an unusually strong combination of Breasted, Petrie, and the whole Berlin school, who all place the reign of Thothmes III. within a year or two of from 1500 to 1450, and make Amenhotep II. come to the throne at the latter date, and Amenhotep III. in 1414 or 1411.[5] The family history of the three first Thothmeses and the Queen Hatshepsut, the daughter of the first, and the wife of at least one of the others, is a matter of dispute, and we need not decide between the conflicting views of M. Naville [6] and Professor Breasted.[7] It is unlikely, however, that her death on any theory is to be placed more than thirty years earlier than the accession of Amenhotep II., and there is no reason for thinking that her great architect Sen-Mut died before her.[8] Rekhmara,

[1] Hall, *op. cit.* pp. 174–5.

[2] Hall, *O.C.G.* frontispiece ; *B.S.A.* viii. fig. 2, p. 171, x. figs. 1 and 2, pp. 154, 156 ; see also Dawkins in *ibid.*, p. 212.

[3] See p. 15 ; fig. 1 of *B.S.A.* viii. p. 171, is probably a strainer. See Dawkins in *ibid.* ix. p. 310.

[4] *E.C.* p. 10 ; *Cor. Num.* p. 353 ; see *B.S.A.* viii. p. 164.

[5] Breasted, *Hist.* 1906, p. 599 ; Petrie, *Hist.* vol. ii. 1904, p. 29.

[6] *Hat.* 1906. [7] *Hist.* 1906, pp. 266–83.

[8] Naville, *Hat.* pp. 57, 63, 70, 71 ; Breasted, *op. cit.*

moreover, the grand vizier of Thothmes III., is now known to have actually lived into the reign of Amenhotep II. There is an as yet unpublished scene on the walls of the very tomb on which we find our Keftians, representing the old man paying homage to his young king.[1] Even on Dr. Budge's date of 1500 for the beginning of Amenhotep II.'s reign, this would bring the Sen-Mut tomb down to 1530, and that of Rekhmara to 1500, while, on the more generally accepted scheme, the dates would be 1480 and 1450. It would be rash, too, to take the latter date as the lowest limit for the destruction of the Palace. It would at least be a strange coincidence if Egyptian artists were painting its glories at the very moment when they were passing away.

It may be argued that the "Mycenæan" pottery from the Tell-el-Amarna of Amenhotep III. and his successor Akhenaten, which must be placed in the first half of the fourteenth century, shows a marked inferiority to that of Late Minoan II., and that an interval of time must be allowed for decadence. To this it may be answered that if we agree that the sack of Knossos occurred rather before than after 1400, we have allowed ample time. The ruin of the great centre of art production would affect the export trade to foreign countries sooner than it affected the home market. The great factories with their traditions and their appliances had ceased working. Individual artists might struggle to maintain the old traditions in their own isolated workshops or at the courts of princes who were partly akin to them, at Mycenæ, or in Rhodes or Cyprus; but the output of good Minoan work contracted, and became insufficient even for the Ægean markets,[2] whilst the younger generation

[1] Newberry, *Rek.* 1900, p. 20; Breasted, *A.R.* ii. p. 295, No. 762. This fact cannot have been taken into account by Hall in giving the date of 1600 to 1550, nor has it, to my knowledge, been brought at all into connection with this question.

[2] Though poor work spread further than ever. See pp. 98, 143, 157.

was brought up in no great school of art. It is possible that in the realism that is so marked a feature of the paintings of the Palace of Akhenaten at Tell-el-Amarna,[1] we have an echo of the sack of Knossos. The isolated Minoans who sought safety in Egypt found there a vigorous and splendid native art, as we see it in the tomb of Amenhotep III.'s great queen Tyi, unearthed only this year at Thebes.[2] On such an art, which for centuries had existed side by side with that of Crete, the newcomers could not impose their own methods and traditions. While, however, they adapted themselves to Egyptian methods, they may well have helped on, perhaps unconsciously, that tendency to realism which the art of the Early and Middle XVIIIth Dynasty had already developed from its contact with the Ægean world.[3]

All that we can assert with confidence is that the great Palace period probably closed before the reign of Amenhotep III. had far advanced from its beginning in 1414 or 1411, and certainly closed before Akhenaten came to the throne in 1383 or 1380.[4] It is unfortunate that a scarab bearing the name of Queen Tyi that comes from a Minoan building at Hagia Triada was found in surroundings that do not admit of close dating.[5] It cannot be a coincidence, however, that objects bearing either her name or that of her husband have been found at Mycenæ and at Rhodes more than once in company with objects that are slightly later than the great Palace style.[6] We

[1] Breasted, *Hist.* 1906, fig. 144, p. 376; Petrie, *T.A.* 1894, Plates II.–IV.

[2] *Times*, February 8, 1907.

[3] Breasted, *Hist.* fig. 156, p. 418 = British Museum, No. 37977; also *ibid.* No. 37976. See above, pp. 76, 93.

[4] This seems in harmony with Mr. Evans's latest views, hampered though they still are by his early date for Rekhmara. See p. 78, n. 1.

[5] *Mon. Ant.* xiv. 1905, fig. 33, p. 735. It was first used as a house and later as a tomb.

[6] *P.T.* p. 115; Frazer, *Pausanias*, iii. p. 148.

can, too, use the Tell-el-Amarna pottery with decisive effect against those who, like Professor Emil Reisch[1] and Dr. Dörpfeld,[2] argue that the Palace may not have been destroyed till 1300 or even 1200.

[1] *A.G.W.* 1904, Sitz, p. [16].
[2] *Ath. Mitt.* xxx. 1905, p. 292.

CHAPTER VII

THE END OF THE BRONZE AGE

THE full extent and meaning of the change in the Ægean world that is illustrated for us by the burnt beams and charred wooden columns of the corridors of Knossos must be discussed later. For the moment it is enough to say that the last of Mr. Evans's nine epochs which it introduces, Late Minoan III., is that which has hitherto been most closely associated with the word Mycenæan.[1] Beginning as it does shortly before 1400 B.C., it certainly does not close till the end of the XXth Dynasty in 1100, and perhaps stretches on another century into the XXIst. Within it fall the objects found in the lower town of Mycenæ, and those cuttlefish "champagne glasses" from Ialysos in Rhodes,[2] which the British Museum authorities were so puzzled where to place when John Ruskin presented one of them five years before Schliemann dug his trenches at Mycenæ. If ever we secure a site continuously inhabited throughout it, and admitting of stratification by successive floor levels, we shall find that it will break up into as many subdivisions as those eras which a few years ago we should have had to class together as Pre- or Early Mycenæan. Its earlier phases are represented by the majority of the hundred tombs excavated in the already-mentioned cemetery of Zafer Papoura, about half a mile north of the Palace of

[1] See Mackenzie in *J.H.S.* xxiii. p. 201, and the interesting article by Dawkins on the find of L.M. III. vases in the island of Torcello, close to Venice, *ibid.* xxiv. pp. 125–8. See below, pp. 125, 157.

[2] Dug up in 1868.

Knossos. The art which they represent would not of itself suggest a violent catastrophe. Degeneration has set in, and proceeds steadily and without a break; but it is gradual, and if we had not the facts of Minoan history before us, we could never have guessed the moment at which the first impetus was given to it. The pottery and the painted chests, or larnakes, recall the designs that we find on objects imported into Egypt in the fourteenth century, at the end of the XVIIIth and the beginning of the XIXth Dynasties. In one of the most characteristic graves, an Egyptian scarab is found which, although it does not unfortunately contain the Cartouche of a king, is regarded as typical of the last years of the XVIIIth Dynasty.[1]

Already, however, in this earliest phase, new types cease to be invented; technical skill lingers on and dies hard, but inspiration has gone. Even the false-necked vase, though it reaches its widest diffusion at this epoch, is, as we have seen, a type found existing in much earlier strata. In the later phases, unrepresented at Zafer Papoura, technique itself begins gradually to degenerate; the designs of the last great creative epoch are imitated with less and less fidelity. The naturalistic flowers and birds and fishes which, as we have noticed, it had borrowed from contemporary fresco scenes, are now rendered in a slovenly shorthand method;[2] beautiful shells, as Mr. Evans puts it, have become corkscrews. At the same time the parallel architectonic style fades away into occasional groups of horizontal bands, the brown-black glaze has all but lost its fine lustre, and the ground of the clay has become a weak pale yellow.[3]

[1] *P.T.* pp. 89, 126; Dawkins in *B.S.A.* ix. figs. 15, 16, pp. 316–7.

[2] *J.H.S.* xxiii. figs. 13, 14, pp. 197–8; *B.S.A.* vi. figs. 31, 32, p. 103 (from the Dictæan Cave), ix. fig. 17, p. 318 (from Palaikastro). There is a good example in the Ashmolean.

[3] Mackenzie in *J.H.S.* xxiii. p. 199.

The great lesson that Cretan discoveries have taught us is that the art of what we used to call the good or mature Mycenæan type is not on the upward grade, soon to be arrested by a catastrophe, but well on the downward grade, with its catastrophe behind it.

Not indeed that there is an absence of catastrophe at the end of Late Minoan III. Till within a year or two ago we should have said without hesitation that the greatest catastrophe of all came here, when the dead are no longer buried but cremated, and iron replaces bronze, and the brooch or fibula is first used to fasten garments, and stiff geometric patterns are dominant, and give the age its name. That such a change as this did come into the Ægean world is as certain now as ever it was, and that in some places the end came suddenly and with violence is probable. In Crete itself, however, the Bronze Age seems to have passed into the Iron gradually and, so far as our present knowledge goes, without any such startling blow as the sack of the Palace at Knossos. Both the Palace of Phæstos and the Villa of Hagia Triada seem to have been destroyed about the same time, and perhaps actually in the same catastrophe, as the capital of the Empire.[1] For Crete the sack is Ægospotami, Late Minoan III. the long months that culminate in the surrender of Athens; the sack is Leipzig, Late Minoan III. the slow closing in on Paris that leads up to the abdication of Napoleon. At Knossos itself the partial reoccupation of the Palace by humbler men of the old race ended before there are any definite traces of the Geometric Iron Age, and, before it came, Zafer Papoura had ceased to be used for burial.[2] Even, however, in the town of Knossos the geometric tombs

[1] So far as we can judge from the character of the latest vases in them. See Pernier in *Mon. Ant.* xiv. 1905, pp. 314 *seq.*; Halbherr in *Rend.* xiv. 1905, pp. 374–6, and *M.I.L.* xxi. 5, 1905, p 244. See also Mackenzie, *B.S.A.* xi. pp. 220, 222.

[2] *P.T.* pp. 133–5; *E.C.* p. 11.

still show the old tradition in their shape, which is that of a small tholos or beehive ; the false-necked vase still survives in them, though in a debased form.[1] Elsewhere in Crete there is fast accumulating evidence of an age of transition. On Thunder Hill at Kavusi Miss H. A. Boyd found a short iron sword and bronze brooches in company with vases transitional between Minoan and Geometric, and uncremated skeletons.[2] In a chamber tomb at Milatos, Mr. Evans discovered in 1899 a painted larnax or sarcophagus, on which there is figured a great Mycenæan body shield, although not of the usual figure-of-eight shape.[3] A false-necked vase, however, that belongs almost certainly to the same interment is, in shape and design, similar to one found at Muliana in company with two late bronze broadswords, and bronze brooches like those found on Thunder Hill.[4] It seems as if we had here not only in-and-out combinations of iron and bronze, but a long shield coming down to the borders of the Geometric Age, although the probability that the figure that bears it is a god suggests that we may be dealing with a religious survival. In the Muliana tomb, too, if we are to believe the "unhesitating description" of the peasant who was unfortunately before Dr. Xanthoudides, and upset everything in his search for treasure, we have evidence of a curiously gradual passage from burial to cremation.[5] Uncremated bones were found with the bronze swords and brooches and the false-necked vase on one side of the tomb, while on the other were found an iron sword and dagger and cremated bones in a cinerary geometric urn, resembling

[1] Hogarth in *B.S.A.* vi. pp. 83, 84, and fig. 26.

[2] *A.J.A.* v. 1901, figs. 2, 3, pp. 128–37.

[3] *P.T.* fig. 107, p. 99 = *J.H.S.* xxi. fig. 50, p. 174. The drawing of the shield in the two illustrations differs considerably. I have assumed that in *P.T.* to be correct.

[4] *P.T.* pp. 102, 112, 131, 132.

[5] Ἐφ. Ἀρχ. 1904, p. 22 *seq.*

in design the early Greek vases found near the Dipylon gate at Athens. The earlier remains were apparently not plundered or destroyed, and Mr. Evans argues that we cannot assume so unusual an amount of reverence in an invading foreigner. We may here have an instance of iron weapons succeeding bronze, and cremation succeeding burial, in the same race, and even in the same family.[1]

With the racial problems that are thus raised we must deal later. It is enough here to notice that the lower limits of the last of Mr. Evans's periods cannot as yet be sharply defined. This very fact, however, reinforcing as it does similar evidence from Assarlik in Caria,[2] the Island of Salamis,[3] and other parts of the Ægean, is important as doing something to fill up the gap between the great civilisation of the Bronze Age and the art of Classical Greece. When Troy and Mycenæ were first discovered, the gap seemed abysmal, and there were archæologists like the late Dr. A. S. Murray, of the British Museum,[4] who refused to believe in it, and assigned the newly discovered civilisation to the period that followed the Dorian invasion, and even to the seventh-century tyrants of Argos. Such views, although unfortunately they exercised for many years a distressing influence on the attitude of the British Museum to its Cyprus excavations,[5] are now completely exploded.[6] The evidence is overwhelming that the gap exists, as indeed it is only natural that a gap should exist in what are admittedly " dark ages " of conquest and migration. Curiously enough, however, the old reluctance to believe that any first-rate art can exist at an era one has hitherto

[1] *P.T.* pp. 112, 134.

[2] Paton and Myres in *J.H.S.* xvi. pp. 237–71, espc. p. 265.

[3] Tsountas and Manatt, *M.A.* p. 388 ; Evans, *P.T.* p. 135.

[4] *Handbook*, 1892 ; *Ex. Cyp.* 1900.

[5] Evans in *J.A.I.* xxx. 1900, pp. 200–7.

[6] For some good criticism of them, see Frazer, *Pausanias*, iii. p. 157.

assumed to be barbaric, has come to life again under a new form. Dr. A. S. Murray, from the point of view of the old-fashioned classical archæologist, objected to the idea of a splendid civilisation existing on Greek soil before the Greeks came there. Dr. Waldstein, as what we must now call the old-fashioned Mycenæan archæologist, objects to the idea of Crete ejecting the Argolid from its position as pioneer of pre-Hellenic civilisation, and centre of its most brilliant developments. In the Preface to a volume that describes the American excavations at the old shrine of Hera, near Argos,[1] he suggests that some of Mr. Evans's discoveries are not Minoan at all. He notices that there is much at Knossos that we should not naturally associate with a primitive age, and contrasts with paternal pride the decorously uninteresting character of his own discoveries in the earlier strata of the Heræum. He argues further that literary tradition assigns to Crete in prehistoric times a place quite secondary to that occupied by the Argive mainland; that, indeed, it is not till early classical times, the seventh or sixth centuries B.C., that the art of Crete, associated with the names of the early sculptors Dipoinos and Skyllis, has much mention made of it. He concludes that it is "startling to find that of this period, concerning which we have undoubted evidence as to the predominant position of Crete, not a single trace should have been found, especially in such centres as Knossos"; and suggests that "however early some of the Knossian remains and the earliest building may be, some parts of the Palace, especially its plastic decoration in stucco, as well as some of the wall-painting, belong to this later historical period."

It may be admitted that the ordinary educated man, if he approaches Knossos from the standpoint of a general knowledge of classical or Mycenæan art, and has never studied the evidence, will be tempted to feel much in

[1] *A.H.* vol. ii. 1905, pp. x–xv.

sympathy with these views. Minoan art is startlingly modern, and there are few scholars philosophic enough not to receive a series of shocks when they see a scientific drainage and lavatory system and magnificent staircases assigned to a date which is nearer the Third than the First Millennium before our era. The regularity and perfection of the wall-building is of itself staggering to those whose differentiation of the various styles of cyclopean, polygonal, fifth century, fourth century, and Roman construction is based on the comparisons they have made at Tiryns or Athens or Eleusis. This tendency, however, to doubt the early character of Minoan art, natural enough as a first impression, does not generally outlast a day's thinking; it is singularly unfortunate that it should have been embodied in a serious standard work.[1] In the first place the similarities to later art are often more apparent than real. Some of the finest ashlar masonry, that of the Northern Bath, for instance, or the Royal Villa, is set in limeless mortar or clay bonding which definitely distinguishes it from the mortarless fifth or fourth century walls with which its beautiful jointing and surface would superficially associate it.[2] Secondly, the mere criterion of modernity proves too much. If we are surprised at the anticipation of the Roman basilica in the hall of the Royal Villa,[3] and can find no word but Gothic for the arcading

[1] It is a pity that Dr. Waldstein did not direct his scepticism to the articles in *A.J.A.* viii. 1904, ix. 1905, in which C. L. Fisher and J. P. Peters claim to have discovered a "Mycenæan Palace" at Nippur in Mesopotamia. A. Marquand's criticism in the latter volume, though correct in its main contention that it is not Mycenæan, itself contains inaccurate statements.

[2] We hope that H. R. Hall will give us information as to points of detail like this in regard to the important comparison he has suggested between the wall-building of Knossos and that of XIth and XIIth Dynasty Egypt. (*J.H.S.* xxv. pp. 331–7.) See below, Chap. VIII.

[3] *B.S.A.* ix. fig. 89, p. 145.

of the Throne or the cinquefoil four-cusped arch on a porcelain figurine,[1] and have never seen the lily design of the frescoes in the south-east house apart from William Morris's wall-papers,[2] it does not help us much to transfer the scene of operations to the seventh century B.C. Thirdly, the standard of excellence reached by the art of Dipoinos and Skyllis, as we hear of it in later literature, was most certainly that of their own period, and we can appraise it from the contemporary work of other parts of Greece. The tradition which handed down to the Homeric bards "the dancing-ground that Dædalus wrought at Knossos for fair-haired Ariadne" is far surer literary evidence for the glory of Minoan art than any that can be claimed for the seventh or sixth centuries. Mr. E. S. Forster's interesting study of the large terracottas from the Altar Hill of Præsos[3] shows us, indeed, the early classical art of Crete *in situ*, and that reaching the standard which we should expect of it. The statement that "no single trace" of early classical art has been found in Crete is shown by this single instance to be an exaggeration; the true way of putting it, that on the whole Minoan remains greatly predominate over Hellenic, need not surprise us at all, if we remember the insignificant part played by Crete in the politics of every period of classical Greek history. Even at Knossos—although, as Mr. Evans suggests, the tradition of the ancient sanctuary survived and prevented the actual Palace site being inhabited—there is a zone, including the greater part of the Theatral Area, where geometrical, classical Greek and Roman remains occur in normal proportions and in natural stratification.[4]

This leads us to our final and conclusive argument. Mr. Evans's results are not obtained from mere stylistic comparisons; there is no danger that he has confused the

[1] *B.S.A.* ix. fig. 58, p. 82. [2] *Ibid.* p. 5.
[3] *Ibid.* viii. pp. 271–81. See especially Plate XIII. fig. 1.
[4] *Ibid.* x. p. 51.

renascent or derived with the original, the archaistic with the archaic ; and he is free from the not infrequent fallacy of thinking that all equally good art must belong to the same period. His method is rather geological than stylistic. It records the stratification of an extensive and long-inhabited site,[1] and it is confirmed by the independent evidence of Phæstos and Gournia and Palaikastro. What profit is it, for instance, to shake one's head over the marvellous classical masonry of the Northern Bath, when above it, separated from it by three feet of deposit, which could itself only have accumulated after the destruction and complete filling up of the bath, is found the cement pavement of a later chamber, the spiral decoration of whose wall stucco would, if found elsewhere, be unhesitatingly classed as " good Mycenæan " ?[2]

[1] See Plate III. For similar sections showing the various strata and floor levels of parts of the Palace, see *B.S.A.* vii. fig. 20, p. 64, ix. fig. 14, p. 27, and x. fig. 7, p. 19, and fig. 17, p. 50.

[2] *B.S.A.* vii. pp. 60, 61.

CHAPTER VIII

THE LABYRINTH AND THE MINOTAUR

BEFORE we pass to the general questions of race and language that are involved in this classification of Minoan History, it may be well to deal with another criticism on a central point in Mr. Evans's position.

It may be argued that the question whether the palace that Mr. Evans has unearthed at Knossos is or is not the Labyrinth, is not a central point at all, but romance unworthy of the serious archæologist. Such a superior view is not that of Mr. Evans; nor will it appeal to the many who have been first attracted to the Cretan discoveries by the memory of the great world story that they first read perhaps in Charles Kingsley's *Heroes*, the story of Theseus and Ariadne, the Labyrinth and the Minotaur. Dr. Rouse at least [1] has got Kingsley's wonderful description, or another like it, so thoroughly and firmly into his head, that he cannot bring himself to believe that the corridors of the Palace were the scene of Theseus's wanderings and the clue of thread that Ariadne gave him. For him apparently the Labyrinth must be some winding cavern in the hills, where Theseus could meet the Minotaur "in a narrow chasm between black cliffs," and hunt him "up rough glens and torrent beds, among the sunless roots of Ida, and to the edge of the eternal snow." If Kingsley really had ancient authority for such a description as this,[2] our corridors would indeed

[1] *J.H.S.* xxi. pp. 268–74; *Sat. Rev.* July 26, 1902.

[2] *Temple Classics*, pp. 171–2. So Höck, *Creta*, i. p. 56; Cockerell *ap.* Smith, *Dict. Geog.* i. *ad voc.* Gortyna.

be inadequate, and Dr. Rouse might have ground for saying that Buckingham Palace would do just as well.

Early Greek writers, however, do not, as a matter of fact, give any description of the Knossian Labyrinth at all. The connection of the word with Gortyna, a town that lies between Knossos and Phæstos, is principally due to the poet Claudian, who wrote in 404 A.D.[1] It is strange that Dr. Rouse should think it supports his case to notice that " both Knossos and Gortyna actually possess a rock cave of the catacomb type." [2] We have no more right, too, to quote Strabo's application of the term to a catacomb near Nauplia as a proof that an ancient tradition connected the word with a cave,[3] than we have to argue in the other direction from Virgil's use of the word " domus " [4] of the actual maze of Knossos. Long before the Augustan age the word had got to mean anything out of which it was hard to find a way, and Strabo would doubtless have cheerfully applied the term to the open-air shrub maze at Hampton Court, just as Plato before him had applied it to arguments,[5] and Theocritus to traps for fish.[6] All that we get in literature that certainly represents an earlier Greek tradition is the Cretan rationalistic version, preserved by Philochorus,[7] that there was no such thing as a Minotaur, and that the Labyrinth was a prison ; and the fact that comes to us from Herodotus [8] that the name Labyrinth was given to the great funerary temple of Amenemhat III.[9] of the XIIth Dynasty at Hawara, close to the opening of the Fayûm.

In the long account that Pliny the elder gives of this

[1] *De Sexto Consulatu Honorii*, 634 ; see Gibbon, chap. xxx. Gortyna is even here probably only a synonym for Crete, as in Catullus, lxiv. 76, Virgil, *Ecl.* vi. 60 ; cp. Virg. *Æn.* xi. 773, vi. 23.

[2] *Sat. Rev.* [3] Strabo, viii. 369 ; Rouse, *op. cit.*

[4] *Æn.* vi. 27. So Ovid, *Met.* viii. 158 ; cp. Catullus, lxiv. 115.

[5] *Euthyd.* 291B. [6] xxi. 10.

[7] *ap.* Plutarch, *Theseus.* [8] ii. 148 ; cp. Diodorus, i. 61.

[9] H. R. Hall in *J.H.S.* xxv. p. 327, xxvi. p. 177.

temple of Hawara, he states [1] that altogether there were four Labyrinths, and names as the two others a building with 140 columns at Lemnos, and an elaborate tomb of Lars Porsena at Clusium. For the last of these he quotes the archæologist Varro, and adds that Varro relied on Etruscan legend. It is possible, therefore, that the word Labyrinth was here used to represent an Etruscan word of similar sound. The appearance of Lemnos, too, in such company is at least a strange coincidence, when we remember the old tradition that connects its "Pelasgians" with the "Tursenoi," or "Tyrrhenians," [2] and the inscription found in it in the unknown language which Etruscan scholars connect with Etruscan.[3] The problems suggested by the mention of these two Labyrinths will be discussed later. It is surprising that they have not been brought into the present discussion by either Mr. Evans, Dr. Rouse, or Mr. Hall,[4] though that at Clusium has a considerable literature of its own. It is possible that Kingsley, writing in 1855, got the idea of his Cretan cavern from the theory, so interestingly discussed in Dennis's *Etruria*,[5] that the underground cemetery of Poggio Gaiella, three miles from Clusium, is what Varro meant by Porsena's tomb.

[1] *Nat. Hist.* xxxvi. 13.

[2] Thuc. iv. 109; Strabo, 221.

[3] In spite of Fick, *V.O.* p. 103, Ridgeway, *E.A.G.* i., pp. 143–9, Hall *O.C.G.* p. 174. Professor Conway informs me that there is little doubt on the matter, as will be shown by Professor Skutsch's forthcoming article "Etruskische Sprache" in Pauly-Wissowa, and by the inclusion of the inscription in the *Corpus. Inscr. Etruscarum.* See too Conway's own forthcoming article in the New Edition of the *Encyclopædia Britannica.*

[4] So C. Fredrich, in *Ath. Mitt.* xxxi. 1906, p. 77, has nothing to say about it except that it was perhaps "a Hall of the Mysteries built by Peisistratus, like that of Eleusis." If this were all, why did the hall at Eleusis never get the name itself?

[5] 3rd ed. 1883, vol. ii. pp. 345–56. The 1st ed. was published 1848. See too Hülsen *ad voc.* Clusium in Pauly-Wissowa, iv. 1. Kingsley's idea is perhaps only due to Cockerell or Höck.

If we examine Pliny's language closely, we see that in his idea of a Labyrinth there was certainly a mysterious, and probably an actually underground element. Wandering in the darkness, and going up many steps, and through many doors, formed part of his conception. On the other hand the three Labyrinths he describes—for of that of Knossos he has nothing to tell [1]—are all conceived, not as caves or catacombs, but as elaborate and magnificent buildings, that are mainly, if not entirely, above-ground. In the only case where we can at all test him, in regard to the Temple of Hawara, there is no doubt that he was in fact correct.[2]

While, however, we must decline to follow Dr. Rouse in his prejudice in favour of catacombs, we must admit that he did good service when he ran atilt against the double axe. In the excitement of first discovery, with the idea fresh in his mind that Labrys, the Carian word for "axe," was the key to the derivation of the Labyrinth, Mr. Evans was perhaps inclined, in Dr. Rouse's words, "to see everything double axes." He assumed too readily that the sign of the double axe, as cut upon many of the stones of the Palace walls, especially on two square detached pillars in the so-called Pillar Rooms,[3] and in a hall which he christened by their name on the south-east,[4] formed important corroborative proofs that here was the true "House of the Labrys."

In point of fact, the significance of these signs is not certain. Many other signs besides the double axe are

[1] Philostratus (*Ap.* iv. 34) seems to be the only writer who conceives that the Knossian Labryinth was pointed out to visitors as still existing. Apollonius of Tyana priggishly refused to go to see it, because he would not make himself a spectator of Minos's wrong-doing! He went to Gortyna instead, because he wanted to see Ida. Philostratus clearly would have had nothing to do with Dr. Rouse's friend Claudian.

[2] See also Strabo, 811.

[3] *B.S.A.* vi. fig. 6, p. 33 = *J.H.S.* xxi. fig. 5, p. 110.

[4] *B.S.A.* vii. p. 112.

found on the walls of Knossos,[1] and the double axe itself occurs, though not so frequently as the star, upon the walls of Phæstos.[2] It has even been found once on those of the palace of Gournia,[3] and as far afield as the Island of Cos, off the Carian coast.[4] On one of the walls of Phæstos almost every stone has a mark, and one has two ;[5] while on a coping-stone in the Royal Tomb at Isopata there are four signs, one after the other, the double axe being in the company of a trio consisting of the trident, the branch, and the eight-rayed star.[6] There is the probability, too, that a great many, though not all, of these marks were covered over with plaster or gypsum facing slabs.[7] The fact that the pillars of the Pillar Rooms served a functional purpose in supporting an upper story is no argument against their sacred character,[8] but it is possible that they were plastered over, and it is significant that similar square detached pillars in the Royal Villa [9] and a house on the south-east slope [10] are not marked with the double axe at all.[11] It is on the whole probable that Mr. Evans was right in the view he expressed thirteen years ago,[12] before

[1] *B.S.A.* vii. p. 22, n. 1 ; Rouse, *op. cit.*
[2] *Ibid.* p. 22, n. 1 ; Rouse, *op. cit.*
[3] Miss Boyd, *A.S.I.* 1904, p. 570.
[4] R. Herzog in *Man*, 1901, p. 52.
[5] *Mon. Ant.* xiv. 1905, fig. 49, p. 439.
[6] *P.T.* fig. 146, p. 167.
[7] Fyfe in *J.B.A.* x. 1902, p. 110 ; Evans in *B.S.A.* viii. p. 66.
[8] *B.S.A.* vii. p. 22. n. 1. [9] *Ibid.* ix. fig. 90, p. 150.
[10] *Ibid.* fig. 2, p. 6. There are indications that an actual double axe may have stood near, but that is another matter.
[11] This is also a difficulty, though not an insuperable one, to our accepting the suggestion of R. Dussaud (*R.E. Anth.* 1906, p. 110, n. 1), that the fact that in the East Pillar Room of the Palace the axe was marked on three, in the West on all four sides of every block, was to show the masons that they were not meant to be built into the wall, but to stand free.
[12] *J.H.S.* xiv. p. 282. So A. Reinach in *R.E.G.* 1905, pp. 78–90. There is a danger of forgetting that this is a return to Mr. Evans's own view.

he came under the spell of the Labrys derivation. When used on the walls of Knossos all these signs, including the double axe, are alphabetic in value, and architectural in function. They were used as masons' marks, and they were chosen as masons' marks because they had a particular value or meaning in the pictographic script of the time.[1]

We cannot even accept the suggestion[2] that stones intended for Knossos were marked at the quarry with the double axe, because its name was especially associated with the Labrys. If this were so, we should have to admit that the Minoan railways were badly organised, and that the stones got mixed in transit.

So far we can go with Dr. Rouse, but no farther. It is one thing to say that the double axe, as marked on building blocks, is probably only a mason's mark, but quite another thing to deny that the pictographic sign that was sometimes thus used was essentially religious in origin, and could be used in other connections with a religious meaning, The evidence is overwhelming from every site in Crete that the double axe, like the sacrificial " horns of consecration " with which it is often found, was intimately connected with religious worship ; and it is highly probable that, like the Pillar,[3] and less commonly the Shield,[4] it was originally regarded as the visible habitation of the divine spirit. In the early aniconic stage of religion, before the days of graven images,[5] the object in which the divine spirit was thought to be immanent was sometimes the axe or shield that was man's weapon of defence

[1] See *B.S.A.* viii. fig. 64, p. 107 ; *P.T.* p. 166, note a ; *J.H.S.* xiv. figs. 23b, 39, pp. 291, 299, 353, 366. So in *Rend.* xiv. 1905, fig. b, p. 390, a derivative of the double axe is seen in the linear script of Hagia Triada, Evans's Class A.

[2] Made by H. R. Hall, *J.H.S.* xxv. p. 326.

[3] *M.T.P.* = *J.H.S.* xxi. pp. 99–204.

[4] *P.T.* pp. 100, 101. For the ancilia at Rome, see *J.H.S.* xxi. p. 129.

[5] Later the aniconic and the iconic existed side by side. See W. M. Ramsay, *H.D.B.* extra vol. p. 121.

against his enemies,[1] sometimes the sacred tree or grove under which he rested in the heat,[2] or the pillar of wood or stone that, as "the Pillar of the House," was the symbol to him of his security from wild beasts. The prominent position that the axe occupies in the dove-goddess shrine at Knossos,[3] and the snake-goddess shrine at Gournia ;[4] its connection with the ritual cope on the Zakro gem,[5] with the horns of consecration on the Knossos [6] and Cyprus [7] vases, with the pillar on the Palaikastro sarcophagus [8] and the shrine fresco of Knossos [9] and with the bulls' heads on the gem [10] and clay seal [11] of Knossos ; its appearance finally among the cult objects in the sacrificial procession on the sarcophagus from Hagia Triada,[12] is evidence enough and to spare.

Starting as a kind of fetish in early aniconic days, the axe survived as an object of worship throughout the transitional stages when the divine spirit first began to be represented in human form. Even these transitional stages, however, were Minoan, not Greek. All that Dr. Rouse says about the Greeks never having worshipped

[1] So D. G. Hogarth in a Lecture briefly reported *C.A.* 1906, pp. 17, 18.

[2] This is not suggested as the only element in the origin of tree and pillar worship, but merely as one among many. See W. M. Ramsay, *H.D.B.* extra vol. pp. 111–3. For the *ficus ruminalis* at Rome, see *J.H.S.* xxi. p. 129.

[3] *B.S.A.* viii. fig. 55, p. 97.

[4] *A.S.I.* 1904, Plate II. fig. 1. See above, p. 27.

[5] *J.H.S.* xxii. fig. 5, p. 78. See above, p. 37.

[6] *Ibid.* xxiii. fig. 15, p. 204.

[7] *Ibid.* xxi. fig. 3, p. 107. [8] *B.S.A.* viii. Plate XVIII.

[9] *Ibid.* x. fig. 14, p. 42. R. Dussaud, *Q.M.* pp. 18, 19, argues that the similar fresco of *J.H.S.* xxi. Plate V. represents a Megaron, not a shrine. Whether this be so or not, the horns of consecration show that it is represented under a religious aspect, as indeed Dussaud agrees.

[10] *B.S.A.* ix. fig. 70, p. 114.

[11] *Ibid.* viii. fig. 60, p. 102.

[12] *Rend.* xii. 1903, p. 343.

symbols, and Zeus not being widely associated in Greek cult with the double axe,[1] is off the point. We have no more right to argue back from classical Greek religion to Minoan than we have to amend Homer by the

> grand old laws
> Which govern the Attic conditional clause.

We have indeed in this case not only a difference of date, but a probable difference of language and of race. We may argue forward, and point out survivals; but we cannot argue backward, and deny the existence of what has not survived.

It is possible that Dr. Rouse may have been led into this anachronistic Hellenism by what we must admit is the unfortunate frequency with which Mr. Evans mentions "Zeus."[2] Mr. Evans, however, as the whole tenor of his argument shows, does not mean that the spirit worshipped in the Minoan age had the attributes or the symbols of the Hellenic Zeus; and he means still less that he was called by that name. On the contrary the evidence is decisive that the chief object of worship was a Nature goddess, and that the male god was only associated with her on an inferior footing, as in some mysterious manner half consort and half son.[3] It is with a goddess and not a god that the double axe is associated in the shrine at Knossos.[4] On the schist mould from near Palaikastro,[5] and on the steatite gem from Knossos,[6] the goddess holds it in her hand, and on the gold signet ring from Mycenæ it is the central object in a scene that depicts her worship.[7]

When the Northern invaders, who broke up the Minoan civilisation, entered the Ægean with their Sky God and

[1] *J.H.S.* xxi. pp, 269, 270.

[2] Cp. Rouse in *J.H.S.* xxi. p. 272, with Evans, *ibid.* pp. 109, 110, etc.

[3] *Ibid.* pp. 170–80; *B.S.A.* ix. pp. 85, 86; W. M. Ramsay in *H.D.B.* extra vol. p. 135.

[4] *B.S.A.* viii. fig. 55, p. 97.

[5] *Ibid.* ix. p. 92.

[6] *Ibid.* viii. fig. 59, p. 102.

[7] *J.H.S.* xxi. fig. 4, p. 108.

their Aryan faith, there was borrowing and harmonising between old and new. The supremacy of the woman still survived where the old population was the stronger, or where its cult was rooted in the traditions of some local sanctuary. The Goddess of Production, Mother and yet Virgin, has her softer, and sometimes her grosser side, preserved in Aphrodite, the Dove Goddess of Paphos in Cyprus and the Sicilian Eryx.[1] In Attica she is intellectualised into Athene, and in the Heræum of Argos she is the Goddess of Power. At Knossos she lives on, more like her old self than in other places, as Rhea, the Mother of Zeus.[2] All over the Greek world the divine pairs, such as Apollo and Artemis, bear witness to the old cult, and it is probable that we must partly attribute to the same cause the emphasis that has been laid on particular aspects of Christianity by the Mediterranean, as opposed to the Northern world. The square equal-limbed marble cross that we find in the snake-goddess sanctuary at Knossos, suggests the reason why the Greek world has always preferred that shape for the Christian symbol, as opposed to the Western " Latin " cross, with its longer upright.[3] The pilgrimages that the Roman Catholic Church is organising to the glen above Ephesus, sacred to the Blessed Virgin and St. John, are appealing to a worship of the Panaghia that is deep-rooted among the peasants of the Eastern Church, and traces its pedigree back, through Diana of the Ephesians, to the Nature Mother of pre-Hellenic days.[4]

[1] *B.S.A.* ix. p. 87. [2] Diod. v. 66, 1.

[3] *B.S.A.* ix. figs. 62, 63, pp. 91, 92, 94, and S. Reinach in *G.B.A.* 1904, pp. 13–23. R. Dussaud, *Q.M.* p. 29, holds that the marble cross was only a " jouet " that decorated a wooden box of which the nails only remain.

[4] W. M. Ramsay in *H.D.B.* extra vol. 1904, p. 120; D. G. Hogarth, *C.A.* 1906, p. 18. For other survivals see L. R. Farnell, *E.R.* 1905, pp. 34, 35; W. M. Ramsay, *E.P.R.E.* 1906, p. 284; and Miss Jane Harrison, *P.S.G.L.* 1903 *passim*, and *R.A.G.* 1905, pp. 20–1, 36. See also below, pp. 138, 198.

It was natural, however, that a Northern people, for whom the male was in the main supreme,[1] should transfer the warlike aspects of divinity from the goddess to the god. Thus it was that at Labraunda in Caria the Labrys, or double axe, was associated with the male god that was now called Zeus,[2] and it is possible that the type of the thunderbolt that is more commonly associated with him may have been at least partially suggested by a degraded type of battle-axe.[3] It is probable, therefore, that the double axes dedicated to Zeus in the cave upon Mount Dicte [4] represent a religious tradition that was modified, but never broken, down to the final settling of the Northern invaders in the Geometric Age; although, as Dr. Rouse truly points out,[5] votive offerings, taken in themselves, do not necessarily suggest the attributes of the god to whom they are offered.

When, however, we ask whether the Palace at Knossos is the Labyrinth, we need not lay stress on the Zeus of the Carian Labraunda, and the connection of the two names with the Labrus, any more than we do on the axe-marks of the Palace walls. The important point is that, whatever derivation we take for Labyrinth, it is improbable that either part of it is Greek. If Labrus be the correct derivation, we must remember that the writer who preserved the word for us [6] tells us that it is not Greek, and there never has been any question about the matter. Dr. Rouse is once again at fault when he doubts that "Laburinthos" could have come from "Labrus" be-

[1] The Corn-Mother (Demeter ?) seems Aryan (Farnell, *C.G.S.* iii. 29, 296). See O. M. Chadwick, *O.E.N.* 1907, pp. 234–68, 327–44, for worship of the female among early Teutonic peoples. How far was this borrowed ? Cp. W. M. Ramsay's remarks on the attitude of the Indo-European Phrygians to the pre-existing worship of Cybele, *H.D.B.* extra vol. p. 134.

[2] *J.H.S.* xxi. p. 109; P. Kretschmer, *E.G.S.* 1896, pp. 303–5.

[3] Is this what Dr. Rouse himself means in *J.H.S.* xxi. p. 269 ?

[4] *B.S.A.* vi. fig. 40, p. 109 = *M.R.* January 1901, p. 58.

[5] *Op. cit.* p. 271.

[6] Plutarch, *Quæst. Gr.* 45.

cause of the "unexampled metathesis of the 'u.'" [1] What percentage of place names are ever correctly transliterated from one language to another?

It is possible, however, that Labyrinth should not be connected with Labrus, but with λαύρα and *Λαύρειον*. It must be left to the Greek philologist to determine whether from the word λαβύρινθος, once taken over with the meaning of maze, the Greeks can have formed a new word λάϝρα or λαύρα, a passage or corridor, and from it again *Λάϝρειον* or *Λαύρειον*,[2] a passage place. If there is any connection between the words—and the similarity of meaning in Greek is at least a strange coincidence—it is more probable that in Minoan itself "passage" was the original meaning of laura, lavra, or labra,[3] and "passage place" of cognate and perhaps dialectical forms that came into Greek as Labraunda, Laburinthos, and Laureion.[4] It was natural that a "place of passages"

[1] *J.H.S.* xxi. p. 274.

[2] MSS. sometimes give Λαύριον. See, however, Meisterhans, *G.A.I.* 1888, p. 40.

[3] Professor R. S. Conway has brought to my notice the colloquial use in Attic of λαύρα for a latrine, a vulgarism that would survive from an earlier language. Some of the examples he has adduced will be mentioned under the termination -nth. I may add to them the direct analogy of the vulgar use of the word "bog," which occurs early in English. "Bog" is a Celtic word: see Murray, *New Eng. Dict. ad voc.* For further remarks by Professor Conway, see Appendix B.

[4] For similar double place formations, see Fick, *V.O. passim*. The following are from among place names in Greece or Asia Minor that he considers pre-Greek, and some of them at least are fair analogies. Fick is not responsible for all of the connections, nor does he mention Λαύρειον.

Ἀλάσαρνα, Ἄλασσα, 52, 31.
Ἀλίκαρνα, Ἀλικαρνοσσός, 87, 117.
Ἄρβα, Ἄρβιον, 95, 24.
Ἄρνη, Ἄρνισσα, 151.
Ἄσσος, Ἄσσωρον, Ἀσσησός, 80, 55
Ἴμβρος, Ἴμβρασος, 121, 120, 55.
Καρία, Κάρπαθος, Καρπασία, 42, 130, 132.
Καύκων, Καύκασα, 61, 95.
Κόρινθος, Κόριον, Κορησός, 74, 126, 131.
Λάρυμνα, Λαρύσιον, 80, 91.
Ρύτιον, Ρυτιασσός, 32.
Σίνδος, Σινδησσός, 151.
Σκάνδεια, Σκανδίλη, Σκανδαρία, 41, 52.

should either be an elaborate building, a palace or temple, or a mine. In classical Greece there was a Laura *par excellence*, the "Arcade" at Samos, famous among other things for its confectioners' shops.[1] So, too, the early Eastern Church called its monasteries Laurai, or Labrai, as they were sometimes spelt.[2] The name must have been originally given, either from the cloisters round them, or because of the long passages, with the monks' cells leading off them; but this does not seem to have been consciously felt, and the word was used for the monastery as a whole.[3] The name indeed is still seen in The Lavra, a monastery at Mount Athos.[4]

For all we know, the silver mines at Laureion, near Cape Sunium, may have been worked in Minoan times, and the inhabitants of Attica may have sent silver to Crete as tribute along with their youths and maidens. Of the antiquity of the mines there is no doubt. Xenophon tells us [15] that in his day no one even attempted to determine the date at which they were first worked, and our principal modern authority [6] has not shrunk from suggesting that they were discovered by the Phœnicians. It is interesting to notice that the dump of stamped metal found at Knossos, the first of all known "coins," [7] is of silver, not of gold. Such use of Laurium would not mean that the Ægean was flooded with silver, for the richest veins were not touched till late in the history of the mine, perhaps not till the beginning of the fifth century.[8] It

[1] Athenæus, 540 f. Plutarch, *Proverbs*, 61.

[2] Epiphanius and Manuel Comnenus *ap.* Casaubon in his note on Athenæus, 540 f.

[3] So much is clear from Casaubon's quotations, though we need not follow him in his view that the word was always equivalent to a block of buildings or insula.

[4] Once the monastery *par excellence*. See Tozer, *R.H.T.* i. p. 93. So, too, my friend the Archimandrites Neophytos Calogeros.

[5] *De Vect.* iv. 2.

[6] Ardaillon, *Laurium*, p. 128.

[7] See p. 16.

[8] Ardaillon, *op. cit.* p. 138.

would account, however, for the fact that, whereas in the time of the Hyksos, silver was rare in Egypt and twice as valuable as gold, it had become more plentiful than gold as early as the reign of Amenhotep III., at the end of Late Minoan II. Gold was then more valuable than silver in the ratio of $1\frac{2}{3}$ to 1, and the ratio steadily increased from that time onwards.[1]

A third alternative, that Laburinthos is a Minoan compound word, formed from a Greek λαύρα,[2] is improbable from the historical point of view. Labraunda in Caria is practically the same word, and we should have to assume that both were formed very late in Minoan history.

Whichever derivation, however, we accept, "place of the double axe" or "place of passages," Mr. Evans's general position is not disturbed.[3] That the word is not Greek is clearly seen when we examine its termination; and as we shall see later, unless the word can be proved to be Greek, its original meaning does not affect the argument.

The suffix in -nth has been conclusively shown to belong to that interesting group of pre-Hellenic words that survives both in place names like Corinth and Zakynthos, corresponding to the Alabanda and Aspendus of the south of Asia Minor, and in common words that would naturally be borrowed by the invaders from the old

[1] Breasted, *Hist.* 1906, p. 338. He talks of it generally as "Northern silver."

[2] See App. B.

[3] Nor would it be if we abandoned both alternatives, and considered Labyrinth and Labrus common offshoots of a root that had some meaning yet unknown in the old religion and was applied as such to the dwellings of the Priest-kings. In view of the "Four Labyrinths" we must not ignore the similarity to the Lar of Etruscan and to Lāmnos, the Nature goddess whose name is preserved to us in the island the Ionians called Lēmnos (Steph. Byz. *ad voc.*; Fick, *V.O.* pp. 66, 105). Vollgraff in *Rhein. Mus.* lx. 1906, pp. 149–61, believes that Labrus came from such a root as this, but that Labyrinth was derived from it after it had acquired the meaning "double axe."

population.[1] Some of these are "earthy of the soil"; [2] the words for dung, barley-cake, and basket, or names of the common animals, hedge-sparrow, cock, and worm, which never penetrated Greek literature, but were unearthed by the lexicographers from the language of the country people. The similarly formed word for "mouse," which remains as the ordinary Greek word, is, in the true sense, an exception that proves the rule, as it is especially quoted by the Greek grammarians as a "Cretan" word.[3] Others, again, are names of plants, some of which would have been quite new to invaders coming from a cold climate to a warm one; [4] such are the words for chickpea, and for the unripe or growing fig, as opposed, we presume, to the fig when dried or used at table. The latter survived in Greek as a place name in the city of Olynthus, and three other similar forms have come into our own language, wormwood or "absinth," the "hyacinth," the spring flower that we call an iris, and "turpentine," which is derived, through the romance languages, from the Greek "terebinth." [5] Similarly it has been suggested, though not of course in reference to this particular termination, that "that which we call a rose" in Western Europe is a loan word that the Greeks have passed on to us from a pre-Hellenic language. The "wardun" that we find in Arabic is the kind of sound the Greeks originally heard, as is shown by the digamma with which *ῥόδον* originally began, and by the cognate Armenian "vard." [6]

[1] P. Kretschmer, *E.G.S.* 1896, pp. 305–11, 402–4.

[2] R. S. Conway in *B.S.A.* viii. p. 155.

[3] See *ibid.* p. 136. [4] A. Fick, *V.O.* 1905, p. 153.

[5] The words are *βόλυνθος*, *κόρυνθος*, *κορυνθεύς* and *πείρινθ-*, *αἴγινθος*, *κορυνθεύς*, *ἔλμινθ-*, *σμίνθος*, *ἐρέβινθος* and *λέβινθος*, *ὄλυνθος*, *ἀψίνθιον*, *ὑάκινθος*, *τερέβινθος*.

[6] Cp. Æolic *βρόδον* and Fick, *V.O.* p. 45. I am indebted to my colleague, the Rev. D. Tyssil Evans, for the Arabic. Probably the word would not be originally Semitic, but common to the Asiatic languages, Lycian, Mitannian and Vannic. Indo-European

If we agree that this group of words is pre-Hellenic, it is unnecessary, for the purposes of the present argument, to discuss whether the language from which they came could possibly be of the Indo-European group.[1] The Greeks themselves, we may suppose, did not know the derivation of the word Labyrinth; there is no reason for thinking that it implied a double axe to them, whatever it did to the Minoans when they formed the word. To them its connotation, if we may borrow from the language of the logicians, was a maze, while its denotation was, primarily, the maze at Knossos in which the Minotaur devoured its victims, and secondarily, the Egyptian Temple at Hawara. Even if we believe that Pliny's account of Labyrinths at Lemnos and Clusium represents an ancient tradition, it is possible in both cases, and certain in one, that it represents an Etruscan, and not a Greek tradition. There is the further possibility that the Lemnos Labyrinth only got its name later, by analogy. One of its supposed architects has the good Greek name of Theodorus. We know that "labyrinths" were built even later than Pliny's day. Under the Emperor Severus, some sort of marble building was put up at Rome by a rich provincial,[2] to which the name was applied.

The Temple of Hawara is another matter. It bears the name as early as Herodotus, and suggests an interesting problem. The old explanation was that the Greeks applied the name to it because the prenomen or "throne-name" of its builder, Amenemhat III., would have been pronounced *Nemarî^{e}, and, by a usual interchange of n with l, transliterated into Greek as Labaris or Lamaris.

Armenians, who may have entered the country as late as the seventh century B.C. (see Sayce, *A.C.I.* 1907, p. 165, etc.), would borrow it from Vannic.

[1] As maintained by Conway, *op. cit.*, opposed to Kretschmer and Fick, *op. cit.*, and Hall, *J.H.S.* xxv. p. 324. See pp. 154–8, 198.

[2] Kaibel, *Epig. Græc.* 1878, No. 920. It was to be an ἀπατὴ τοῖς ζῶσιν.

Mr. H. R. Hall has lately [1] made the interesting suggestion that the resemblance of the two words may have been helped out by the fact that the Hawara temple was actually like the Palace of Knossos, both in its complexity and in the use that it made of white crystalline limestone for its finely built walls and pillars. "Parian marble," Pliny called it,[2] and though it did not come from Paros, excavation suggests that it was in fact a fine bright stone. The more extensive remains of the almost contemporary temple of the XIth Dynasty Mentuhetep III. at Deir-el-Bahari confirm the suggestion, and make it probable that it closely resembled the shining white gypsum of Knossos.

The only difficulty in accepting the suggestion is the question of date. In the early classical period, from the seventh century onward, merchants and mercenaries from the Greek cities travelled freely throughout Egypt, and doubtless knew Hawara well; but by that time the Palace of Knossos had long been in ruins, and was probably covered by the soil. For the three centuries preceding the seventh there was, so far as we can tell, no intercourse at all between Egypt and the Greek world, and even in B.C. 1100 it seems to have been but slight.[3] If the name, then, was partly given because of the resemblance between the two buildings, we must imagine that it was in the centuries immediately following the sack of Knossos, when "the isles were troubled," and the wandering Northern tribes, not yet settled in their new homes, fought, as invaders or as mercenaries, on the Egyptian borders.[4] If we are warranted in claiming so high an antiquity for the name, it would scarcely involve greater difficulties to follow Diodorus [5] and Pliny,[6] who saw in the Egyptian building the actual prototype of the Cretan. On this view the word Laby-

[1] *J.H.S.* xxv. pp. 320–37, and figs 1–3.
[2] *Hist. Nat.* xxxvi. 13.
[3] See pp. 159–60.
[4] *Ibid.*
[5] i. 61.
[6] *Op. cit.*

rinth would be applied by the Minoans themselves in its original meaning to the Royal Temple at Hawara and the Palace Shrine at Knossos, and the two names would be passed on to the Greeks together. The XIIth Dynasty, to which Amenemhat III. belongs, must be placed on any chronological theory as early as the building of the Palace of Knossos.[1]

These two last suggestions, that the name was given to Hawara either in Late Minoan III. or Middle Minoan III., raise a further point, which needs delicate handling. It has been known for some years that there was buried in Egypt, at Gurob in the Fayûm, not much later than 1300 B.C., a high official called An-Tursha, or "Pillar of the Tursha." The name is followed by the ethnic and the country determinatives, and the type of the mummy's face, and the piercing of the lower lobe of its ear, are recognised by Professor Petrie as non-Egyptian. It has been argued that this implies a settlement of foreigners called Tursha in the neighbourhood, and the name has been connected with the Thuirsha or Turusha who trouble Egypt with the Akaiuasha in the reign of Merenptah, 1234—1214 B.C.[2] The name thus falls into line with the group of names of invading tribes which can now with scarcely a doubt be equated with Achæans, Teucri, and Danai.[3] The only difficulty in the identification, the ending in -sha, has been convincingly explained by Mr. Hall as showing that the Egyptians learnt the names through an Asia Minor medium. It is the common nominal suffix -azi or -aza, which we meet in Halicarnassos and Sagalassos, and in Sppartazi, the Lycian word for Spartans. The connection is confirmed by an inscription of Rameses III., 1202—1170 B.C., in which the Thuirsha are called "of the

[1] See Chaps. IV., V.

[2] Petrie, *K.G.H.* 1890, pp. 36, 40; Hall in *B.S.A.* viii. 180, 181.

[3] Hall, *op. cit.* pp. 176–84, and *O.C.G.* 1901, pp. 178–9; cp. Kretschmer, *E.G.S.* 1896, pp. 311–7, 394.

sea." They are assigned to the north [1] along with the Zakaray or Tchakaray, who may survive not only in the Teucri, but in Zakro in East Crete,[2] and the Shairdana, or Shardina, whom Professor Maspero equates with the Sardians of Lydia, and Professor Petrie with the Sardinians.[3] They are here, too, represented as kneeling figures, prostrate and conquered.

That these Tursha were Tursenoi or Tyrrhenians has already been suggested,[4] and is on its merits the most probable theory.[5] That some of them settled in Egypt as a "Varangian bodyguard" is also made probable, not only by the tomb at Gurob, but by their appearance with some Shairdana as fighting for Rameses III. against some of their former allies from the north.[6] It was not unnatural, though perhaps somewhat bold, for Dr. Krall [7] to connect the long Etruscan inscription that he found in Egypt, written on linen and wrapped round a mummy, with a supposed Etruscan community that had lived on in Egypt uninfluenced into the Ptolemaic period, like Jews in a mediæval Ghetto.

Do Pliny's "Four Labyrinths" reopen the question? Is it a coincidence that Gurob is only five miles from Hawara? [8] Or do Egypt, Knossos, Lemnos, Clusium form a chain that takes us to the origin of that most mysterious of all peoples, the Etruscans? The tradition

[1] Petrie, *Hist.* iii. 1905, p. 162.

[2] *Ibid.* p. 151.

[3] *Ibid.* p. 113; Hall, *op. cit.* p. 181.

[4] Müller *ap.* Hall, *op. cit.* p. 181.

[5] Petrie's suggestions as to Thyrea and Thera (*Hist.* iii. p. 162) are unconvincing.

[6] Hall, *op. cit.* p. 182, and *O.C.G.* p. xxvii from Greene, *Fouilles à Thèbes.* This is not mentioned in Petrie, *Hist.* iii. pp. 147–53.

[7] *D.A.W.* xli. 3, 1892, pp. 15–22. I owe the reference to Professor Conway. It was a "liber linteus" containing a ritual, and originally had nothing to do with the mummy. It is not known what part of Egypt it came from.

[8] Baedeker, *Egypt*, Eng. ed. 1902, p. 180 and Map 13.

that they came from Asia Minor is as old as Herodotus,[1] and the common element in Cilician name formation, Tarkun- or Trokon-, as it appears in Tarkumbrios or Trokondas, is strangely reminiscent of the House of Tarquin.[2] Was their settlement in Italy part of the general movement of the "peoples of the sea" that accompanied the break-up of the civilisation of the Ægean ?[3] And are the matched boxers on the "Monkey Tomb" of Clusium[4] and on the zoned vases of Bologna and South Austria[5] not merely a reminiscence of Cretan work that has come up the trade routes, but a survival from a common tradition ? How nearly the Etruscans were akin in race or language to the Ægean peoples that seem to have settled on the East Italian Coast in Late Minoan III. we cannot tell, but the head of the Adriatic may have been affected by both influences.[6] The uncouth element in the art of early Etruria may have been due to Northern influences that are at present obscure, but at least it was art, where for centuries there was no art at all. Its nobles had a singularly good taste for Greek

[1] i. 94.

[2] Kretschmer, *E.G.S.* pp. 362–409. Kropp's comparisons (*M.M.K.* p. 58) of Minoan cross-gartered buskins with Lydian-Etruscan shoes are not convincing.

[3] So Dörpfeld in *Ath. Mitt.* xxx. 1905, p. 292.

[4] Dennis, ii. 1883, p. 332. [5] See above, pp. 33–5.

[6] For Minoan influence in the Adriatic, see below, p 157. Whether or no Kropp (*M.M.K.* pp. 14–5) is justified in connecting the termination of the Tyrolese Glurns, Schruns, Tarrenz, with Etruscan words in -uns and -urns and the Mycenæan Tiryns, the Etruscan tombs and inscription at Vadena (Dennis, i. p. xxxvi n. 8) warrant their presence in the Tyrol. It is neither necessary (with Mommsen, Sergi, Ripley, and, later, Hall, *O.C.G.* pp. 103, 174), to suppose therefore that they entered Italy from the North, nor (with Ridgeway, *E.A.G.* i. p. 248, n. 4) to minimise the traces of them that are found there. Livy's statement (v. 33, 11) that the Gaulish invasion isolated and drove into the mountains the northernmost of the Etruscan communities gives a fairly satisfactory explanation. See Conway's forthcoming article in the *Encyclopædia Britannica.*

vases. It may be true, too, in the main, that it was native Mediterranean blood, reasserting itself after centuries of suppression, that created the Italian Renaissance ; but, as so stated, the theory does not account for the dominant part played in it by just that part of Italy in which the Etruscans settled.[1] Was the old blood only strong enough to come to the surface again where it had been reinforced by a kindred, and more highly civilised, Ægean stock ?

Whatever is thought of the probability of these explanations, it is at least clear, as has already been said, that whenever and by whomsoever the Egyptian Labyrinth was so called, the name was in this case associated with an elaborate building, and not with a catacomb. If it was so associated in the one case, it may have been in the other, and we are justified in passing from denotation to connotation, and asking whether the Palace of Knossos could be considered a maze, and whether the story of the Minotaur could have gathered around it.

The first point to notice is that the story of the Minotaur as we have it is not Minoan, but Greek. If it is probable that the word Labyrinth is not Greek, it is certain that the last part of the word Minotaur is. A language does not use a foreign termination to form a compound word, and the fact that -nth is not Greek makes it out of the question, other considerations apart, that the word Labyrinth as a whole is Greek. That the name Minos, however, was foreign was no objection at all to the Greeks compounding it with their own "tauros." The Minotaur is the Man-Bull, creature and kinsman of the king, and symbol of his cruelty and power. Whether there was ever in the Minoan age a cult[2] of such a monster, half

[1] See *e.g.* Dennis, i. p. ciii.

[2] As urged by A. B. Cook, *J.H.S.* xiv. pp. 81–169, and R. Dussaud, in *Q.M.* p. 24. So, too, F. Noack (*H.P.* 1903, pp. 84–6), who thinks that we have not yet found the true Labyrinth, the Temple where the beast was worshipped.

human and half animal, we do not know. Still less have we evidence for Fick's theory [1] that the whole story is to be explained by a worship of the heavenly bodies. The Minotaur, he argues, was the sun ; the moon was Pasiphae, " the very bright one," the wife of Minos, and the mother of the monster ; while the tower on whose walls the wise men traced the wanderings of the stars was the origin of the Labyrinth. It is probable that some of the Greek myths were influenced by Babylonian astronomy, and that the Minoans got the idea of their beast-headed demons from the animal gods of Egypt.[2] There is little evidence, however, in the remains of Minoan civilisation of any study or conscious worship of the heavenly bodies,[3] and the fact that Pasiphae in Greek means " shining on the world " is a slender basis for a theory. The extraordinary variety, too, of the monster types that we meet with on Cretan gems, and the fantastic forms that they assume, make it doubtful [4] whether they can be used to support a theory of animal worship. Besides the Man-Bull, we have a Man-Boar, a Man-Stag,[5] a Man-Lion,[6] a Man-Goat,[7] an Eagle-Lady,[8] and a Bull-Lady,[9] and many of them in sub-species or varieties, all differing less or more from each other. Among the Zakro seal impressions we have more than 150 of these monsters, and few of them are quite alike. Some are

[1] *V.O.* pp. 28, 127.

[2] *B.S.A.* ix. p. 84. For some suggestive remarks as to the extent to which the monsters of Oriental cult had their origin in actual freaks or abortions, see H. Bab in *Z. f. Ethnol.* 1906, pp. 296–311.

[3] For an example of it, see the gold signet ring from Mycenæ, *J.H.S.* xxi. fig. 4, p. 108. Farnell, *C.G.S.* iv. 143–4, exaggerates.

[4] So Hogarth in *J.H.S.* xxii. pp. 91, 92, and G. Karo in *Arch. Rel.* 1904, pp. 153, 154.

[5] *B.S.A.* xi. fig. 10, p. 18. [6] *Ibid.* viii. fig. 18, p. 302.

[7] *J.H.S.* xxii. Plate VII. No. 34, etc.

[8] *Ibid.* Plate VI. No. 20, etc.

[9] *Ibid.* Plate VII. No. 43, etc. She has eagle wings and a fan-tail.

obviously mere grotesques, a demoniacal human head set in a bat's wings,[1] or a winged cherub with a lion's legs;[2] on one of them we have a monster with human legs, and the head of a dog or bull, in an attitude of adoration to a female figure in a flounced skirt, presumably a goddess.[3] The Zakro sealings as a whole[4]—and they are ample evidence—do not suggest a living cult, but rather the taking over from foreign religion of forms that were meaningless to the artist, except so far as they gave an opportunity for the exercise of his fancy, and enabled him to provide his patrons with distinctive signet rings.

It is not probable then that a Minoan himself would have understood what was meant by a Minotauros, even when he had had the Greek explained to him; he would have pointed out to his Greek friend that if it pleased him to give that name to the figure on his signet-ring, he should remember the Man-Boar and the Man-Stag that belonged to his neighbours, and invent a parallel romance of a Minocapros and a Minelaphos. The Minotaur story was doubtless helped out by the fantastic creations that the Greek invader found around him embodied in gems and also, in all probability, upon the Palace frescoes. The choice of a bull, however, for the monstrous shape, was not dictated by any worship of a Bull-Man in Minoan times, nor by that of a bull either, save in so far as the bull was the chief sacrificial animal, and associated with other sacred objects in cult scenes.[5] The principal, if not

[1] *J.H.S.* xxii. Plate VIII. No. 76 = fig. 20, p. 84.

[2] *Ibid.* Plate VIII. No. 78 = fig. 22, p. 84.

[3] *Ibid.* Plate VI. No. 5 = fig. 4, p. 78. In *B.S.A.* vii. fig. 7a, p. 18, the seated Calf-Man is probably being worshipped by the coped figure that bends towards it (see above, p. 37). But such an isolated case, natural from the religious origin of the idea, does not invalidate our general argument.

[4] *Ibid.* pp. 76–93.

[5] E.g. *B.S.A.* ix. fig. 70, p. 114, viii. fig. 60, p. 102, and Plate XVIII.; *J.H.S.* xxi. fig. 3. p. 107, and Plate V. Cp. also the Hagia Triada Sarcophagus, p. 31, above.

the sole reason, that the story gathered round the Bull, was the actual historic fact of the Minoan bull-ring, and the frequency of its representation on frescoes and and gems.[1]

Whether or no it was men speaking the Greek language who sacked Knossos, the Greeks must have settled in the island soon enough after the sack to wander through its corridors, and hear of its grim traditions. It is highly probable that the toreadors were slaves or captives, won as spoil, if not as tribute, from lands over the sea. Each Minoa [2] may have had to send in its quota to the Imperial capital. It is difficult to explain otherwise the fact that girls as well as youths played their part in the ring; and the Athenian tradition that both sexes were sent as tribute [3] can hardly be a coincidence. That there were attempts to escape that failed, who can doubt? That there was one that succeeded was a story which, if not true, was at least *ben trovato*. As the memories of those man-destroying bulls, "preserved" by the king for the palace sport, were coloured by the man-beast forms of art, so the horrors of captivity seemed real again to after-generations when they stumbled through the long corridors and deep basements of the Palace.

Few who have visited Knossos, few indeed who try to find their way through the Plan of the Palace contained in the present volume, will question its right to be thought of as a labyrinth or maze. The winding staircases and the stories piled one above the other, that make its interpretation difficult even now that we have barely got more than the ground-floor level, must have made it bewildering in the age that immediately followed the sack, when the upper structures were still partially standing, but enough of them had fallen to block up doors and passages. The very existence of

[1] See p. 21.

[2] See pp. 11–3. Contrast the safe Thessalian *ταυροκαθαψία* (Farnell, *C.G.S.* iv. 25) on horseback.

[3] *E.g.* Plutarch, *Theseus*.

basements and upper stories would be new and confusing to the Northerner, and make him feel as Pliny felt when he wandered " for the greater part in the dark " [1] through the Temple of Hawara. On the corrridor walls, too, were frescoes that helped out the story, and suggested its details. There were the life-size plaster bulls in high relief, and the toreadors painted at their work, and the beautiful youths and maidens who gave the touch of romance. The idea of a maze was itself known to Minoan art, and in a corridor by the Hall of the Double Axes, on the eastern slope, there have been found the remains of an elaborate " labyrinth " design, painted in reddish brown on a white ground, which might well suggest to the intruder the idea of a " Palace Plan," and of a clue that could be found and followed.[2] Mr. Evans was amply justified when, at the end of his first season's work, he claimed that the ruins of the Palace enabled us to see how the whole legend grew. Their effect on the Greek invader was just the effect that the guarding of the Cupbearer fresco had on Manolis.[3]

" Everything around," he wrote,[4]—" the dark passages, the lifelike figures surviving from an older world—would conspire to produce a sense of the supernatural. It was haunted ground, and then, as now, ' phantasms ' were about. The later stories of the grisly king and his man-eating bull sprang, as it were, from the soil, and the whole site called forth a superstitious awe. It was left severely alone by the newcomers. Another Knossos grew up on the lower slopes of the hill to the north, and the old Palace site became a ' desolation and hissing.' "

One last word before we pass from Dr. Rouse's criticisms. If we are convinced that the Palace of Knossos is what the Greeks meant by a Labyrinth, it is a matter

[1] xxxvi. 13.
[2] *B.S.A.* viii. fig. 62, p. 104.
[3] See pp. 2–3,
[4] *M.R.* March 1901, p. 132.

of secondary interest whether the Minoans called it specifically by that name. Whether the word in the Minoan language meant "place of the double axe," or "place of passages," or something else, it may have been applied to other places as well as to Knossos. The Carian Labraunda may in Minoan have been exactly the same form, and the Labyrinths at Lemnos and Clusium, for all we know, may be a genuine tradition. If further evidence should prove this to be the case, it would disturb the foregoing argument not at all. Constantinople was the "City" to the Byzantines only in the secondary sense that London is "Town" to us. In the famous song of the last days of the Empire—

> They have taken the city, they have taken it, they have taken Salonica,

it was Thessalonica, and Thessalonica alone, that was referred to. If it was intelligible at the time—and we must surely assume that it was—the word "city" must have struck the ear without conveying the suggestion that it was Constantinople whose capture was being sung.[1] None the less there are few derivations of place names so certain as that which derives Stamboul, the Turks' name for Constantinople, from the quickly uttered "stempol" [2] which they heard the Greeks saying when they were going "to the city." Stamboul is not only an example of an expression of position losing its force, just as the old locatives Athenai and Thebai became the nominatives that survive in our plural

[1] Passow, *T.R.* cxciv–cxcvi. Thessalonica, whose Cathedral was called St. Sophia as well as that of Constantinople (Bury, *L.R.E.* vol. ii. p. 52), was taken in 1430. It is possible that some of the lines which are usually printed as part of the same poem were written about the taking of Constantinople itself twenty-four years later, but Professor J. B. Bury assures me that I am right in referring the line to Thessalonica only.

[2] ες τὴν πόλιν.

forms Athens and Thebes, but it shows how the generic word of one language may be misunderstood, and used as a specific word in another.[1] If we may follow up the analogy, Mr. Evans's attempt to support his identification of the Labyrinth by the double-axe marks on the Palace walls is as if some one were to find the word "Polis" in a Greek inscription at Stamboul, and claim it as a proof of its identity with Constantinople. Dr. Rouse would find a "Polis" inscription somewhere else, and argue triumphantly that he had proved the identification wrong. It would be right all the same.

[1] Another example, though not so good a one, is our own Chester. Compare, too, Leicester, Caerleon, etc.

CHAPTER IX

CRETE AND THE EAST

" Ex Oriente Lux " is the motto of a brilliant school of German writers who have done much to interpret for us the ancient civilisation of Babylonia.[1] The motto is at once a challenge and a claim, and it has already justified its existence for Greek as well as for Jewish history. It is the East, for instance, that has explained the mysterious Golden Lamb of Atreus and Thyestes. In the ninth and eighth centuries B.C. the Oriental world saw a change in the movements of the heavenly bodies which it naturally associated with another change, historical and political. At the vernal equinox the sun was then in the Sign of the Ram, and no longer, as in the past, in that of the Bull ; and all the time Babylon and its Bull-God Marduk were declining before the power of Assyria. Henceforward the coming of the Ram implied to the Oriental mind change of power.[2]

So too the idea of the wooden horse in which the Greeks entered Troy is seen to have been taken from the tall siege engines of the Assyrians, in which the top platform swung round on a revolving pivot like an animal's head and neck, above the level of the walls. Hence the " leaping " of the wall and the setting down of the " armed brood " within the city.[3]

[1] It is the actual title of a series edited by Hugo Winckler (Pfeiffer, Leipzig), and is the motto of Fick's *V.O.*

[2] G. G. A. Murray, Euripides *Electra* (Allen, 1905), p. 92, from Winckler, *W.A.O.* p. 30, etc.

[3] This was, I believe, first suggested by G. G. A. Murray, Euripides *The Trojan Women* (Allen, 1905), p. 86.

For such interpretations the historical conditions present no difficulty. From the Tell-el-Amarna letters we know of the free intercourse that existed between Babylon and Assyria and the fourteenth-century Egypt of Amenhotep III. and Akhenaten,[1] while from the eleventh century onwards the influence of Assyria was felt directly on the coast of North Syria and Asia Minor. In regard to more early periods, the great antiquity of Minoan civilisation and the difficulty, with our present knowledge, of synchronising it with that of Mesopotamia, warns us that what seems to be an example of influence may really be one of common origin. It is, for instance, probable that there is a connection between the Dove-Goddess shrine at Knossos and the Dove Cult of the Syrian Semiramis and the Phœnician Astarte, and that some such worship was common to the early Eastern world. It does not, however, follow that Knossos borrowed from Babylonia, while it is even possible that the familiar examples of the Semitic cult that we have mentioned were rather influenced by Crete than the reverse.[2] When Mr. Evans illustrated his Minoan Tree and Pillar Worship from the beliefs of the early Semites, he was careful to show that the evidence points rather to some remote common element, the nature of which is at present obscure, than to any definite borrowing by one side or the other.[3] The burning bush in which Jehovah declared Himself to Moses, and the other trees that are associated with visions of the Divine Presence in the Old Testament,[4] are parallel to the sacred fig-tree in the shrine on the stone vase from Knossos,[5] and the oak

[1] For two good accounts see Petrie, *Hist.* ii. 1904, pp. 259–320, and Sayce, *A.C.I.* 1907, pp. 187–214.

[2] *B.S.A.* viii. pp. 29, 30.

[3] *T.P.C.*=*J.H.S.* xxi. pp. 99–204, especially pp. 130–2.

[4] *Ibid.* p. 132; Ex. iii. 2; Gen. xviii. 1, 2 (to Abraham); Judges vi. 11 (to Gideon); cp. also Judges iv. 4; Joshua xxiv. 27.

[5] *Ibid.* fig. 2, p. 103.

that remained sacred down to classical times at Dodona in Thessaly. The pillar that Jacob set up after his dream, and called it Bethel "the House of God," [1] is a trace of the same idea that we see in the Pillar Rooms at Knossos. Jachin and Boaz, "the Stablisher" and "in Him is strength," the columns that Solomon placed in front of his Temple,[2] are "Pillars of the House," first cousin to the sculptured slab on the Lions Gate of Mycenæ.[3] It is spiritual power that is symbolised on the Lions gate, between the sacred beasts.

Such views only strike us as unnatural if we persist in regarding Crete as part of the Western World. We are so accustomed to thinking of Classical Greece as the bulwark of the West against the East, that we forget that this attitude of imperviousness is only a short chapter of history. The political aggression of Persia meant that for the 180 years during which our attention is most concentrated on the Greek world, it is the frontier fortress of Europe, resisting and not receiving. That all this was changed by the conquests of Alexander is accepted as a commonplace. Greece did not so much give to Europe a Semitic religion, as help the Semites to create one; and the Roman-Greek Empire was a good half Oriental.[4] It is our classical prejudices that hinder us from accepting as true for before Marathon what we do not shrink from for after Arbela. Crete was as much part of the East in the Minoan age as Constantinople is to-day. There is no need to explain away its orientalism as a borrowing from one of the already known Oriental civilisations.

Our general principle that the East came farther West,

[1] *T.P.C.* = *J.H.S.* xxi. p. 132; Gen. xxviii. 18, 22.

[2] *J.H.S.* xxi. p. 144; 1 Kings vii. 21=2 Chron. iii. 17.

[3] *Ibid.* fig. 35, p. 157; *S.S.* fig. 137, p. 140. See an eloquent passage in Miss J. E. Harrison's *P.S.G.R.* 1903, p. 498.

[4] For some good remarks on this see W. M. Ramsay, *E.P.R.E.* 1906, pp. 283–7.

does not mean that in detail there was no give and take between its various parts; still less that they were all alike. Crete and Egypt in particular were in close contact from an early period in Minoan history, and influenced each other at many points. There is freshness, too, and originality about Cretan art, whether it be due solely to the environment of sea and mountain, so different from the flat plains of the Nile or the Euphrates; [1] or whether it point also, as we shall discuss later, to some early blend of race. Many of its favourite subjects, like the crocus [2] and the wild goat or Agrimi,[3] are native to the Island. Even the palm-trees on the Vaphio cup, which used to be quoted as a motive borrowed from Syria when their origin had to be assigned to the palmless Argolid, are now freed from the alien taint; the palm-tree to this day grows wild in Crete.[4] Even where a motive was originally taken from Egyptian life, it was treated in a distinctive way. The water-lily, *Nymphaea stellata*, grows in Egypt, and not in Crete; but when the artist who painted the Zakro vase chose it for his design, he found it too stiff for his taste, and gave it the careless curves of some field flower that he knew in Crete.[5] It was long ago suggested [6] that the lion hunt on the Mycenæ dagger-blade,[7] which is at least akin to Cretan art, if not its product, has a dramatic touch in it that is foreign to Egyptian or Assyrian art. The hunter who is under the lion, like those who are tossed by the bulls on the Vaphio cup and the Hagia Triada vase,[8] shows us that sympathy with the other side that made possible the Hector and

[1] So H. R. Hall in *J.H.S.* xxv. p. 337.

[2] *B.S.A.* ix. p. 81. [3] *Ibid.* p. 73.

[4] R. C. Bosanquet in *J.H.S.* xxiv. p. 320. Contrast Frazer, *Pausanias*, iii. p. 151; P. Gardner, *N.C.* 1892, p. 73; Hall, *O.C.G.* 1901, p. 189.

[5] D. G. Hogarth in *J.H.S.* xxii. figs. 2 and 3, pp. 336–7.

[6] P. Gardner in *N.C.* p. 121.

[7] *Ibid.* p. 65 and *S.S.* fig. 227, p. 229.

[8] See pp. 33–4, and Plate I. A.

Achilles of the *Iliad* and the character-play of Attic Tragedy. So in the decoy scene on the Vaphio cup the bull and the cow stand in an ethical, and not merely a material relation to each other. It would be difficult to parallel this in other Oriental art, in which tenderness between animals is usually confined to the relations between mother and young. The way, too, in which the bull in this central scene turns its head outwards towards the spectator, and takes him as it were into its confidence, is distinctive. An Egyptian artist would have looked at the scene objectively, and from the outside, without the touch of sympathy that makes it pathetic and almost human.[1]

If we turn to religion, again, the direct influence of certain elements in Egyptian animal worship cannot be doubted; but they are adapted, and not taken over bodily. The Griffin, the Sphinx, and the Hippopotamus goddess appear on Cretan gems crossed with native beast-headed demons;[2] and a snake-goddess and her votaries,[3] dating from Middle Minoan III., and clearly connected with the cult of the Egyptian mother goddess Hathor, are dressed in the latest fashions of the Minoan Court.[4] In religion, as in art generally, Crete translated its loans into indigenous terms, and contributed as much as it received. The goddess with the snakes was herself probably not entirely a new foreign cult, but rather the chthonic aspect of the Nature-goddess who seems from first to last to have been the main object of worship in the island. As the serpent, coming from the crevices of the earth, shows the possession of the tree or pillar from the

[1] See the suggestive articles by A. Riegl and A. Körte in *J.O.A.I.W.* ix. 1906, pp. 1–19, 295.

[2] D. G. Hogarth in *J.H.S.* xxii. p. 92.

[3] It may be noticed in passing that Mr. Evans believes that a little porcelain figure of a cat, found near, was originally set on the head of the votary (*B.S.A.* ix. fig. 56, p. 77). In the copy in the Ashmolean it is conjecturally restored to this position.

[4] *B.S.A.* ix. pp. 81–4 and fig. 58, p. 82.

underworld, so the dove, with which this goddess is also associated,[1] shows its possession from the world of the sky. It may be noticed that the theory, started by Dr. Thiersch,[2] that the Snake Figures at Knossos are not those of a goddess and her votaries at all, does not dispense with the connection with Egypt. They are snake-charmers, according to Dr. Thiersch, brought over from Egypt to play their part in the amusements of the Palace. That the theory is an impossible one is shown, not indeed by the similar figures found by the British School at Palaikastro[3] and by Professor Halbherr at Prinià near Gortyna,[4] where the context in which they are found gives no decisive clue, but by the shrine at Gournia,[5] of the existence of which Dr. Thiersch ought surely to have heard.[6] The terracotta female idol that was found in it entwined with a snake was, without any doubt at all, an object of religious worship. M. S. Reinach has rightly seen that the tradition of such a snake-goddess survives alike in the Furies of Æschylean Tragedy, with the snakes "that hiss in their hair," and in the Artemis of the Arcadian Lycosura, who was represented as carrying a torch in one hand and two serpents in another.[7] In Classical Crete itself the symbolism of the old religion is probably to be seen in the Medusa-like heads found at Præsos and Palaikastro, where snakes are held in either hand, or spring from head or shoulders.[8]

[1] *B.S.A.* ix. p. 85.

[2] In Furtwängler's *Ægina*, 1906, vol. i. p. 372. He even puts "Schlangenzauber" as a heading, as if there were no doubt about the matter!

[3] Dawkins in *B.S.A.* x. fig. 6, p. 217 and p. 223.

[4] A. Wide in *Ath. Mitt.* xxvi. p. 247 *seq.* [5] See p. 27.

[6] He gives at least no sign of having heard of it. R. Dussaud (*Q.M.* 1905, p. 29) *has*, but believes in the snake-charmers in spite of it. [7] *B.C.H.* xxx. 1906, pp. 150–160.

[8] Bosanquet in *B.S.A.* viii. p. 257; Dawkins in *ibid.* x. p. 223; and Bosanquet in *ibid.* xi. figs 20, 22, pp. 303, 305. For a sug-

That Babylonia also contributed something to Minoan culture is *a priori* probable. The idea of drainage, for instance, may have originally come from the Mesopotamian cities,[1] and the use of the Clay Tablet for writing.[2] There may even be some grounds for Dr. Drerup's suggestion that the Dorians took over Laws which Minos had received, not from Zeus, but from Babylon. The early Code of Greek Laws discovered at Gortyna resembles that of Khammurabi, he thinks, too closely for it to be a coincidence.[3] We know at present, however, too little about the condition of Asia Minor and North Syria, down to the middle of the second millennium B.C., to determine with any certainty whether such influences could have reached Crete except through the medium of Egypt. It is rash for Professor Fick to support his theory that the Minotaur legend is derived from Babylonian astronomy, by the figure of a Hittite God at Carchemish on the Upper Euphrates that has horns above its head.[4] The same must be said of Professor Winckler, who believes that the idea of the siege of the city on the silver cup from Mycenæ [5] was taken from some monuments set up in Asia Minor or the eastern islands by Sargon of Agade or his son Naram-Sin.[6] Whether there is, as he suggests, any similarity of style between the Mycenæ cup and the Stone Slabs that record Naram-Sin's sieges in the valley of the Tigris,[7] may be a matter for discussion. There is, however, no authority for the idea that these early rulers of Mesopotamia, whom Professor Winckler dates at about 2800 B.C.,[8] and

gestive study of this "chthonic" side of Greek Religion, as she calls it, see Miss J. E. Harrison, *P.S.G.R.* 1903, pp. 18–31, 235–9, 326–32. For other survivals, see above, pp. 115, 198.

[1] See p. 9. [2] So Sayce in *A.C.I.* 1907, pp. 182–3.

[3] Homer, 1903, pp. 134, 145.

[4] *V.O.* p. 127. [5] Gardner, *N.C.* p. 66.

[6] *A.O.* vii. 2, 1905, pp. 10–2.

[7] *Ibid.* fig. 1, p. 11.

[8] *A.V.G.* 1905, p. 7. So E. Meyer, *S.S.B.* 1906, p. 10, n. 1.

others 1000 years earlier,[1] penetrated into the islands of the Mediterranean. In an Assyrian tablet illustrating various omens from the history of Sargon of Agade and his son Naram-Sin, a statement occurs that Sargon "crossed the Western Sea." This has been connected by Professor Sayce and others with a cylinder, dedicated to the deified King Naram-Sin, that has been found in the Island of Cyprus.[2] It has long been pointed out that the Cyprus Cylinder does not date from an earlier period than the seventh century B.C.[3] Mr. L. W. King, however, is now about to publish[4] a copy of the original Chronicle from which the historical portion of the tablet of omens was derived, and this will show that it was the "sea in the East," and not the "Western" sea that Sargon of Agade crossed. It is not the Mediterranean that is referred to, but the Persian Gulf, as was natural for a king who is known to have conquered Elam. Mr. King's new Chronicle thus removes the only definite grounds for the theory that Sargon of Agade crossed the Mediterranean or penetrated farther West than the coast of Syria.

If the distinctive character of Minoan art prevents us from describing it as Egyptian or Babylonian, we have still less right to call it Carian or Phœnician, in the ordinary acceptation of these terms. In a certain sense we may well use both the words in connection with our subject. The similarity between the place names of Western Asia Minor and those of the Greek world[5] point

[1] *E.g.* Hilprecht, *E.B.L.* passim. See F. Ll. Griffith in *A.A.* 1899, p. 213.

[2] Sayce, *T.S.B.A.* v. 1877, p. 441 *seq.* and *A.C.I.* 1907, pp. 139–40

[3] H. R. Hall, *O.C.G.* 1901, pp. 113, 314. See also Sayce himself, *A.C.I.* 1907, p. 182.

[4] *Chronicles concerning Early Babylonian Kings*, vol. i. chap. ii. 1907 (Luzac's Series of Studies in Eastern History). Mr. King has with great kindness allowed me to make use of the fact in the present book.

[5] See pp. 119, 154.

to a connection of language, and probably of race. The Minoans of Crete were, in all probability, very much the same kind of people as the contemporary inhabitants of Lycia and Caria. In a slightly different way we may trace a connection between Crete and the north coast of Syria. Philistia may have been a Minoan colony, and the Semites of Tyre and Sidon may, as Mr. Evans has suggested,[1] have developed their curiously unsemitic love of the sea under the influence of their Cretan neighbours. It is possible, indeed, that the name Phoinikes, or "Red Men," was first applied by the invading Greeks to all the brown-complexioned people among whom they came, and that it was only later restricted to the Semites of Canaan. This view of Fick's[2] is not without its difficulties, and we have to explain why the Greeks gave up the name for the Red Men of the Ægean among whom they settled, and applied it only to a people who still remained foreigners to them. We must imagine that the colour-word was applied in the first days of invasion, when the darker tint was unfamiliar to the Northern blonds, and that its meaning was soon forgotten. It was thus restricted to the one sea-going people of the south-east who in the succeeding centuries came into close contact with the Greeks as a racial unit. The theory would throw much needed light on certain traces of "Phœnicians" on the Greek mainland which it is difficult to associate with the Semites. Cadmus, for instance, and the "Phœnician writing" of Bœotian Thebes[3] may only be one of the earliest Greek traditions of men who used the script of Knossos. They may point to the same kinship between the Ægean and Asia Minor as the Pictographs in which Proetus wrote down the

[1] *J.H.S.* xxi. p. 131. See also *ibid.* xiv. pp. 368–72.

[2] *V.O.* p. 123.

[3] The inscriptions Herodotus saw in Thebes (v. 58–61) were only Archaic Greek, but, as his language shows, they were not the origin for him of the tradition he knew, but an inference from it; in point of fact a mistaken one.

secret message that was to bring Bellerophon to harm. These "baneful signs," as the story tells us,[1] were understood alike in Corinth and in Lycia. It was always puzzling, on the assumption that Cadmus, son of Phœnix, was a Semite, that his sister was Europa, and his nephew Minos. There are traces, too, even in Greek writers, of a wider use of the term Phœnicia,[2] and the specific word "Sidonian" is used in Homer for the Semites, in what is probably the oldest passage in which they are mentioned.[3] We may add to Fick's suggestions an interesting analogy from Egypt. There is no doubt that in later Egyptian history the Semitic Phœnicians were actually called "Keftians," the name that down to the sack of Knossos was applied in Egypt to the Cretans and the other "men of the isles in the midst of the sea."[4] In name, as well as in the facts of commerce, the Semites here entered upon the inheritance of the Minoan people. Was it so also in Greece?

There is all the difference in the world between such views as these and the old Carian[5] and Phœnician[6] theories that looked upon Mycenæan or Minoan civilisation as imposed from the outside by foreigners. Caria played no such leading rôle in the early culture of West Asia as to justify us in considering it as the origin or centre point of a civilisation. The excavations that have

[1] *Iliad*, vi. 152–78. The σήματα λυγρά were in a folded tablet. If they had not been, Bellerophon could doubtless himself have read them.

[2] Corinna and Bacchylides, *ap.* Athenæus, 174.

[3] *Iliad*, vi. 290–1. The name occurs also in the *Odyssey*, but side by side with Phœnician. So also in *Iliad*, xxiii. 743–4. In the latter passage they are called Phœnician in their function as the carrying people, not as living in a particular district.

[4] H. R. Hall, *B.S.A.* viii. p. 163; Von Bissing, *ap. ibid.* p. 165.

[5] Furtwängler, *A.G.* iii. 15; Dümmler and Studniczka, *Ath. Mitt.* xii. 1 *seq.*

[6] Helbig, *H.E.* 1887, and *Q.M.* 1896; Bérard, *P.O.* 2 vols. 1902–3. For two good criticisms see Myres in *C.R.* x. 1896, pp. 350–7, and G. G. A. Murray in *Q.R.* April 1905.

been conducted there at Assarlik, near Myndos, by Mr. Paton and Mr. Myres show us [1] that its chief contact with Minoan culture was at the end of the Bronze Age, in the last days of Late Minoan III. It may well have been to Caria, among a kindred people, that many of the Minoans fled before the Northern invader.[2] In the Dark Ages, when the Minoan sea power was destroyed, and the Northerners had not yet sufficiently assimilated the remains of the old population to create a new sea power of their own, men who lived in Caria did in fact rule the Ægean Sea. It is to this period, as has been recently reaffirmed by Mr. Myres in a suggestive essay,[3] that we must refer those passages about a Carian Thalassocracy that we meet with in Herodotus [4] and Thucydides.[5] So far from Carian being a good word for Proto-Minoan,[6] Late Minoan would be a better one for Carian. Archæologists have been led astray by not remembering the great length of time that elapsed between the great days of Knossos and Mycenæ and the beginnings of the sea power of Ægina and Athens. They have ignored the fact that the five or six centuries immediately preceding the Classical period were not likely to have left no traditions at all. While Dr. Murray and Dr. Waldstein have wrongly assigned to the great gap what is long anterior to it,[7] some German scholars have gone to the opposite extreme, and deprived the gap of even the small content that rightly belonged to it.

If, however, it is geographically and historically un-

[1] *J.H.S.* xvi. pp. 264–7.

[2] So Dörpfeld in *Ath. Mitt.* xxx. p. 292. He regards this, however, as a return of "Carians" to their fatherland. The story preserved in Herodotus (i. 173) of the migration to Lycia of Sarpedon, the brother of Minos, may possibly be referred to this period. For L.M. III. remains at Miletus, see Dawkins, *Y.W.C.S.* p. 7. Ephorus (*ap.* Strabo, 941) calls Sarpedon its founder. See pp. 198, 202.

[3] *J.H.S.* xxvi. pp. 84–130.

[4] i. 171.

[5] i. 4, 8.

[6] So Dörpfeld, *Ath. Mitt.* xxx. p. 296.

[7] See p. 103.

sound to call the Minoan culture Carian, it is racially unsound as well to ascribe it to the Phœnicians of Sidon and Tyre. The influence of Phœnicia in the Ægean was foreign, late, sporadic. It developed in the gradual days of decadence that followed the sack of Knossos. It reached its height in the Dark Ages that swept away before the iron swords of the Northern invaders all but the memories of art and beauty. It was only then, when the hand of Egypt was weary and relaxed, and the chaos of conquest and migration left the Ægean without a master, that the " grave Tyrian trader " saw that his day had come to leave the southern coast-land and expand north and west. It was only in virtue of the few centuries which followed the twelfth that he could call " the Ægean isles " " his ancient home," and see the " merry Grecian coaster " as " the intruder."

But Matthew Arnold's well-known stanzas [1] suggest a deeper problem. This

Merry Grecian coaster

from Chios or Miletus—these

Young, light-hearted masters of the waves,

were they in any real sense entering upon their rightful inheritance ? Were they the descendants in race, language, beliefs, of the people who created the early art of the Ægean ? Have we any right to call that art Greek ?

It may at once be frankly admitted that to these questions no full and adequate answer can yet be given ; we can only suggest some of the lines of argument which may some day, with the help of further discoveries, succeed in solving them.

The first point that we must be clear about is that the question is largely one of degree. No scholars suggest or could suggest that the Minoans were Greek in the full sense of the word. The Greek race of the Classical period is admittedly a blend of Northern and Southern elements.

[1] *The Scholar Gipsy.*

Certain of these elements came into the Ægean world comparatively late in history, and cannot be responsible for the development of Minoan culture from its Neolithic beginnings to its zenith in the great artistic periods. Was the Greek language one of these late intrusive elements? If it was so, is this a case where the coming of a new language means only to a slight extent the coming of a new race? Was some kind of Indo-European spoken in the Ægean before Greek,[1] and did the men who introduced Greek find there, when they came, men who were partially akin to them in race? Or was Greek itself already in the Ægean before the last wave of invasion came, and did the last Northerners, as Professor Ridgeway holds,[2] contribute, not the Greek language, but other Indo-European elements? Was the coming of Greek a simple thing, like the imposition of Arabic on Egypt, where a small body of conquerors brought about a complete change of language, but hardly any change of stock?[3] Or are we to look for analogies to the complicated making of England, where four successive waves of Indo-European conquest, Celtic, Roman, Saxon, and Norman, have beaten out a language which in different degrees bears the mark of them all, and yet have failed to destroy the original pre-Indo-European race, that has all the time survived almost unmixed in Wales and Western Ireland, and is slowly reasserting itself elsewhere.[4]

The problem that we have to face is one of intrusive elements—when and whence they came, and what particular contribution they made to the general stock. Grant, with most ethnologists,[5] that practically the

[1] As held by Conway, *B.S.A.* viii. pp. 141–56.

[2] *E.A.G.* i. 1901. [3] Petrie, *Migrations*, 1906, p. 15.

[4] Beddoe in *J.A.I.* xxxv. 1905, pp. 236–7 and Plate XVII.; Rhys and Jones, *W.P.* 4th ed. 1906, pp. 1–35, 617–41. See below, p. 194.

[5] *E.g.* Sergi. *M.R.* 1901; Ripley, *R.E.* 1900.

whole basin of the Mediterranean was inhabited in Neolithic times by a dark-skinned long-headed race; that this race possesses extraordinary persistence, and, in spite of constant invasions and conquests, remains the basis of the present population in Spain, Italy, Greece, and Egypt; that it is the most gifted race in the world, and that the artistic impulse, wherever we find it in the area which it inhabits, has always been due to it. Grant all this, and we are little nearer solving what is the really interesting part of the question, at what times and under what influences its various branches developed their special characteristics and their widely different languages.

One hypothesis only can we reject with confidence, that part, namely, of Professor Ridgeway's theory [1] which combines the two propositions that the creators of the Ægean civilisation were indigenous and unmixed from the earliest times to the end of the Bronze Age, and that they spoke, or rather, we should say, evolved, the Greek language. It could only be justified by the assumption that the original centre of diffusion of the Indo-European group of languages was the shores of the Mediterranean, and that the dialect which was afterwards to grow into Greek was left stranded there at a remote period. The linguistic and historical improbabilities of such a theory would on general grounds put it out of court, even if we do not see in isolated languages such as Basque and Finnish, and certain place names and other primitive features in the Greek language itself, traces of a pre-Aryan element in Europe.[2]

It is at this point that we naturally ask how far light has been thrown on the question of language by recent discoveries. The pictographic and linear

[1] *E.A.G.* i. 1901, pp. 81, 92, and 645–80.

[2] *E.g.* Kretschmer, *E.G.S.* 1896, pp. 289–409; H. R. Hall, *O.C.G.* 1901, pp. 83–97, and *J.H.S.* xxv. pp. 323–5. Cp. Cowley's Ugro-Finnic theory in *C.R.* xix. p. 71.

scripts of Knossos offer us material in abundance, and there is a certain amount of it, though not so much, at Phæstos and Hagia Triada; but we have no means of deciphering it. The intercourse between Crete and Egypt, close as it was, was hardly of the political nature that would involve bilingual inscriptions. It was because Greek and Egyptian, Persian and Babylonian lived under the same government, that we possess the Rosetta stone and the great inscriptions of Behistun. It is almost too much to hope for that Egyptian will do for prehistoric Greece what, a century ago, Classical Greek did for Egypt. Nor do we possess a series of proper names, like the list of the Achæmenid Kings, which led Grotefend and Rawlinson along a sure chain of inference, and enabled them, without any bilingual clues, to decipher Old Persian.[1] Minos is a poor stock-in-trade with which to start operations!

When Mr. Evans publishes the full material, as he hopes shortly to do,[2] it will be seen that he has established certain preliminary points. He has satisfied himself that whereas the pictographic script was written either right to left, or "boustrophedon," or left to right, the first class of linear script runs generally, and the second class always, in the last direction. This method of writing from left to right had indeed become so fixed at this latter period that symbols which still retain something of their pictographic form, and can be regarded as "facing" one way or the other, face towards the right without apparently conveying any ambiguity as to the direction in which they are to be read. In Egyptian, which can be written indifferently right to left or left to right, the symbols always face the direction from which the inscription is to be read. In the Cretan inventory lists, on the other hand, the totals are placed on the right, even although the figures face that way, and it is

[1] For a good account of this see Sayce, *A.C.I.* 1907, pp. 1–35.

[2] Through the Clarendon Press, Oxford.

reasonable to suppose that totals come at the end and not at the beginning of a line.[1]

In regard to the origin of these three scripts, Mr. Evans's comparisons of them with other early alphabets suggest many interesting points, such as a connection with the pre-Dynastic population of Egypt,[2] but they cannot be said to have led yet to any sure results. It should be noticed that certain later Greek alphabetic forms occur on some fishlike bone objects at Knossos,[3] and as countersigns on seals at Hagia Triada.[4] They are unlike either the pictographic or the linear Cretan script, but their occurrence on porcelain and other ware in Early Egypt[5] suggests that there were a large number of competing signs in existence in the Mediterranean from very early times. The Greek alphabet was a selection from an extensive repertory, from which each highly civilised branch of the Mediterranean race had picked and chosen in its turn.

Even when the full material is before the world, it is possible that, without some bilingual clue, no one will gather more from the inscriptions than Mr. Evans yet has done. He has made out certain signs already, those for man and woman for instance, some numerals, and objects such as arrows and spears.[6] Between the two linear scripts he has discovered so many points in common, in one case even what appears to be a personal name, that it is probable they represent the same language.[7] The excavation, too, of the Little Palace shows the

[1] Evans in *Phylakopi*, p. 184; H. R. Hall, *O.C.G.* p. 141, and *C.R.* xix. p. 80; Evans, *C.R.* xix. p. 187. Personal communications with both writers suggest that the above is the correct view of the matter.

[2] *J.H.S.* xvii. pp. 377–95. [3] *B.S.A.* vii. pp. 118–20.

[4] *Mon. Ant.* xiii. fig. 43, pp. 47–52.

[5] Refs. *ap. B.S.A.* vii. p. 119. Cp. *ibid.* vi. p. 42.

[6] *B.S.A.* vi. pp. 55–9, viii. p. 94, ix. p. 53, x. pp. 57–61; *Phylakopi*, p. 183.

[7] *B.S.A.* ix. p. 54. See *Times*, Nov. 26, 1903.

important fact that this language remained at least in partial use in Late Minoan III.[1] It has already been remarked [2] that at an early period it was written with pen and ink, and not only scratched on clay. The clay tablet, it may be noticed, is probably the direct ancestor of the Greek and Roman custom of writing with a "stilus" on a tablet coated with wax.

How far these systems of writing, and the language that they represent, prevailed outside of Crete, it is impossible yet to tell. The Island of Melos, whose close connection with Crete we have already had several times to notice,[3] seems to be the only place where traces of the Minoan scripts occur in any considerable quantity. Even here there are only marks on vases,[4] and the same is true of the still more isolated traces found on terracotta or stone vases in the Island of Cythera or on the mainland, at Mycenæ and elsewhere.[5] Such marks, like those on the spinning whorls from Troy,[6] may point to the fact that a system of writing existed in their original centre of diffusion; but in their place of discovery they may be trade-marks, copied and used without comprehension of their original meaning. They may belong, too, some of them, not to any particular system of developed writing, but to the original stock of signs common to the Mediterranean race. It would hardly be maintained that the pottery marks at Tordos, in Transylvania, which resemble so closely those on the Trojan whorls,[7] prove that the Minoan script and the Minoan language were in use in Neolithic Hungary.[8]

The fact that the remains of the script at Mycenæ

[1] *B.S.A.* xi. p. 16.
[2] See p. 64.
[3] See pp. 14, 63, 85.
[4] *Phylakopi*, pp. 177–85, figs. 150–9.
[5] *J.H.S.* xiv. pp. 272–4, Tsountas-Manatt, 1897, *M.A.* pp. 268–93.
[6] H. Schmidt in Dörpfeld, *T.I.* 1902, i. pp. 427–8, and Beilage 48.
[7] H. Schmidt in *Z. f. Ethnol.* 1903, figs. 38–9, p. 457.
[8] Evans has some remarks on this point in *J.H.S.* xvii. pp. 391–2, and xiv. p. 367.

and Tiryns are so small as to be negligible, may only be an accident, due to the fact that they were continuously inhabited, and not destroyed under conditions favourable to the preservation of Clay Tablets.[1] Even Cyprus seems only to have produced three balls of clay with inscriptions on them ;[2] yet it can scarcely have been without some system of writing on Clay Tablets, whatever its relation was to that of Crete.[3]

The absence, however, of masons' marks on the mass of stonework that survives in the Argolid cannot be thus explained. It is not surprising that in 1897, before much was known of the Cretan scripts, Professor Tsountas followed M. Perrot in denying the art of writing to "Mycenæan" civilisation.[4] We know now that to the centrepoint of that civilisation writing was familiar, and it is difficult to believe that a district that was in such close touch with it as the Argolid would not have used the Cretan script if it had understood it. Though the evidence of place names makes it almost certain that the same language was spoken all over the Ægean at some period before the coming of Greek, it is not clear, on the linguistic evidence alone, when this period was.[5] It is not out of the question that a different language was being spoken on the mainland at the time when the Minoan scripts were in use in Crete.

Still less is it clear, on the evidence of the scripts themselves, whether or not their language was Indo-European. Although Mr. Evans has found in it changing suffixes that may be inflexional terminations,[6] this fact in itself proves nothing as to its affinities. There are suffixes in Lycian, which in the opinion of most authorities does not belong

[1] See above, p. 18 ; also Sayce, *A.C.I.* pp. 181–3.

[2] From Enkomi. See Evans, *J.A.I.* xxx. 1900, fig. 14, p. 217.

[3] Sayce, *op. cit.* [4] Tsountas-Manatt, *M.A.* pp. 284, 291–2.

[5] See pp. 154–5, 197–8..

[6] E.g. *Phylakopi*, p. 183. Mr. Evans has also kindly made the general statement to me personally.

to the Indo-European group ;[1] and there are pronominal suffixes in all Semitic languages, case endings in Classical Arabic, and survivals of them in Hebrew.[2]

It might carry the matter a stage farther if we could be sure that the unknown script represents the same language as the Stone Slabs from Præsos, in the interior of Eastern Crete. Its three short inscriptions are written in a fully developed Greek alphabet, although not in the Greek language. They have been subjected to an exhaustive examination by Professor R. S. Conway,[3] who has made it not improbable that their language is an Indo-European one, with a special kinship to Venetic. The actual inscriptions only date from the sixth to the fourth centuries B.C. respectively, but the fact that Præsos was the centre [4] of the people whom classical Greek tradition, as early as Homer, calls the " Eteo "—or True—Cretans,[5] makes it certain that we are here dealing with a language that was spoken there before the end of the Bronze Age.

It is significant, in this connection, to notice that Præsos does not appear to have been a centre of Minoan civilisation. That there was a shrine there is probable, for the worship of Zeus and Rhea at Præsos in Classical times preserves traces of the old religion.[6] The excavations, however, of the British School show that there was no considerable settlement there, still less anything that could be called a city, till the end of the Bronze Age.[7] It is improbable that the Minoans themselves would

[1] Kretschmer, *E.G.S.* pp. 289–400. So Fick, *V.O.* p. 3 ; Hall, *J.H.S.* xxv. p. 324.

[2] For this I am indebted to my colleague, the Rev. D. Tyssil. Evans.

[3] *B.S.A.* viii. pp. 125–56, x. pp. 115–26.

[4] Staphylos, *ap.* Strabo, p. 475. [5] *Od.* xix. 170.

[6] Cp. R. C. Bosanquet in *B.S.A.* viii. p. 257, with R. M. Dawkins, *ibid.* x. p. 223, and Bosanquet, *ibid.* xi. pp. 304–5.

[7] R. C. Bosanquet, *ibid.* viii. pp. 231–70 ; E. S. Forster, *ibid.* pp. 271–81 ; J. H. Hopkinson, *ibid.* x. pp. 148–53 ; Forster, *ibid.* xi. pp. 243–57.

then in their days of decay have founded a new city in the interior of Crete. The evidence from Knossos and Phæstos is rather that they maintained their old centres, though on a humbler scale.[1]

If, then, the Eteo-Cretans are not identical with the Minoans, what is the relation between the two? It may perhaps be argued that they represent a native population that reasserted itself after the fall of the Minoans. The Minoan settlements in Eastern Crete were close to the coast, at Gournia, Palaikastro, Zakro, and this may be taken as pointing to the fact that the original inhabitants were driven into the interior, as the Greeks and Phœnicians in Sicily drove into the highlands the Sicans and the Sicels. We should, on this view, however, expect to find at Præsos traces of continuous occupation, whether or no it presented different features from the neighbouring Minoan civilisation. For such occupation there is no archæological evidence. Except for a Neolithic Cave burial,[2] there is practically nothing, even in the Tholos tombs, that is certainly earlier than the Geometric Age.[3] Considering the mass of pre-Hellenic remains on most Cretan sites, their absence here is significant. If the Eteo-Cretans were the natives of Crete, we must imagine that the centre at which they gathered, when the Minoan domination was over, was a spot that had never been previously occupied either by themselves or their masters. It is more probable that Præsos was founded by a new intrusive people, with no special aptitude for the sea, who established themselves in the interior of Eastern Crete in Late Minoan III., before the coming of the Greeks. If Professor Conway

[1] See pp. 49, 89, 100.

[2] Bosanquet in *B.S.A.* viii. p. 235.

[3] A few Kamáres fragments in the above Skálais cave (*ibid.* p. 235). See pp. 234, 238, 242, 245, 248, 252. A gem, fig. 25, is not enough to prove the date of a tomb. See Hogarth's remarks in *J.H.S.* xxii. p. 90; also Hopkinson, *B.S.A.* x. p. 148.

is right in his view that their language is Indo-European, we may see a reason why the Greeks gave them their name. We know of no other non-Greek Indo-Europeans in the Greek mainland or the islands. The Greeks would have called the Minoans Phoinikes,[1] or Pelasgoi, or what not. They would have met men of their race elsewhere. These Italic Indo-Europeans alone were peculiar to Crete. What more natural than that they should call them the True Cretans? "Eteokretisch" need not be the same as "Urkretisch," however easy it may be to confuse the two.[2]

If it is argued that this view is against the general impression of later ages [3] that the Eteo-Cretans represent the original inhabitants, it may be answered that this later tradition, as we find it for instance in Diodorus,[4] is too obscure to warrant any inference from it except the extremely mixed character of the population. The traditions of Præsos itself, however, as preserved by Herodotus,[5] are in fact well explained by the theory we have been advancing. Præsos is regarded as distinct from the dominion of Minos, and is not involved in its ruin. As Minos represented the great days of Crete, and the temptation to claim kinship with him must have been considerable, the absence of such a claim on the part of the Præsians suggests a strong and ancient tradition.

[1] See p. 141.

[2] *E.g.* Hall, *O.C.G.* pp. 87–90, where he assumes that Eteo-Cretans are what we now call Minoans. There is nothing whatever in ancient tradition to connect the name Eteo-Cretan with Knossos.

[3] *E.g.* Strabo, p. 475. He thinks that both Cydonians and Eteo-Cretans are autochthonous, which is only another way of saying that both are pre-Dorian.

[4] iv. 60, v. 80. For an attempt to explain these passages, see R. Meister, *S.G.W.* xxiv. pt. 3, pp. 63–4.

[5] vii. 170–1. Evans in *J.H.S.* xiv. p. 357, note 43, explained the tradition differently. He has not since that date (1894) commented on the matter.

Their story, too, as to the double depopulation and resettlement of Crete after the fall of Minos, combined with the archæological evidence as to the later foundation of Præsos itself, outweighs the implication in Herodotus's narrative,[1] that the city already existed in Minoan days. If this also is on the authority of its inhabitants, it is natural, but not decisive, that knowing they were there before the Greeks, they should claim to have been there still earlier. It is possible, however, that it is an inference of Herodotus's own, and that the Præsians' real belief as to their own origin is contained in the remark directly attributed to them, that after the fall of Minos Crete was occupied by Greeks "among other people."[2] Did they realise that they themselves were these other people?

If, however, the -nth termination is Eteo-Cretan, as Professor Conway is inclined to suggest,[3] this theory that Eteo-Cretan was peculiar to Crete, and probably to one part of Crete, cannot be entertained. Corinth and Zacynthus, Cerinthus in Eubœa, Caryanda in Caria, Aspendus in Pamphylia, Laranda in Lycaonia,[4] show that the people who named them first must at one time or another have occupied both the Greek and the Asiatic coast. If we believe that these people were Indo-Europeans, we must suppose that, before the coming of the Greeks, an Indo-European race with Italic affinities dominated the whole Ægean area. The associations of some of the names in question, Tirynthian for instance, and Rhadamanthus, make it improbable that they are

[1] vii. 170. λέγεται . . . Κρῆτας . . . πάντας πλὴν Πολιχνιτέων τε καὶ Πραισίων ἀπικομένους . . . ἐς Σικανίην . . . Into the racial history of Polichna and its neighbour Cydonia in the west of Crete (Thuc. ii. 85), we cannot enter in the present state of our knowledge. Tradition does not call them Eteo-Cretans. See Strabo, 475.

[2] *Ibid.* 171. ἐς δὲ τὴν Κρήτην ἐρημωθεῖσαν, ὡς λέγουσι Πράσιοι, ἐσοικίζεσθαι ἄλλους τε ἀνθρώπους καὶ μάλιστα Ἕλληνας.

[3] *B.S.A.* viii. pp. 154–6.

[4] See the imposing list in Kretschmer, *E.G.S.* pp. 308–11, 402–4.

late intruders. Such Indo-Europeans must have played a leading part, if not the only part, in developing Minoan and Mycenæan civilisation. If, on the other hand, we accept as more probable the view that regards Indo-Europeans of any kind as appearing comparatively late in the history of the Ægean, we must conclude that Minoan and its continental neighbour Lycian were akin to the Central Asia Minor languages,[1] Vannic, Mitannian, and Hittite or Arzawa,[2] which stretch in a chain, north to south, from Armenia to North Syria. In both cases the givers of the -nth names cover the whole area, and there is no reason to imagine that they spoke a different language from the Minoans.

An examination, however, of the evidence gives us no decisive reason for connecting the termination -nth with Præsos and its inscriptions. In the "Barxe" and "Nomos" fragments it does not occur among the twelve certain and eight probable terminations that Professor Conway acutely recognised,[3] and in the "Neikar" fragment the nearest thing to it is an apparent -entas.[4] Though it is found, too, in Crete, as a place and name

[1] Both Kretschmer and Fick, *op. cit.*, believe that a non-Indo-European Asia Minor tongue akin to Lycian once prevailed in Greece; but the former (pp. 180–2, 408) places the intrusion of Indo-European into some if not all parts of the "Mycenæan" world before the end of Late Minoan II. Fick's date (p. 3), even for the incoming of the Indo-European Phrygians, is not much before 1000 B.C. H. R. Hall, *O.C.G.* pp. 94–7 and *J.H.S.* xxv. p. 324, takes a similar view to Fick as to the "Asianic" character of Minoan.

[2] For a good account of them see Sayce, *A.C.I.* 1907, pp. 160–86. His identification of Hittite with the language of the two Tell-el-Amarna letters connected with the King of Arzawa (pp. 174–5) is confirmed by H. Winckler, *O.L.Z.* Dec. 15, 1906 (*Sonderabzug*, Wolf Peiser, Berlin, pp. 14–15), as the result of his excavations in 1906 at Boghaz Keui or Pteria in Cappadocia.

[3] *B.S.A.* viii. p. 141.

[4] *Ibid.* x. p. 120. See also my own note, *ibid.* p. 124.

ending, it is not particularly associated with Præsos or the east of the island as a whole. Rhadamanthus and the Labyrinth belong to Knossos, and Puranthos survives in the modern Puráthi, almost due south of it.[1] Of Surinthus we have no certain knowledge, but the nearest modern name to it seems to be Sûri,[2] in the west of the island, close to Suda Bay. Other names in -nd or -th, in some of which the old term may possibly be hid,[3] are found all over the island, and not only in the east, in Præsos and its neighbourhood. That some examples of the termination should be found there would be natural, on the theory that it belongs to a language common to the whole island. That any should be found elsewhere is fatal to a theory that makes it peculiar to the east.

The same remark applies to the connections that can be established between Crete and Phrygia.[4] Some of them are, so far as we know, common to the island, such as the word σμίνθος, a mouse, with its analogy to Apollo Smintheus in the Troad.[5] Of the three that are local, the little island of Chrysa, south of Hierapetra,[6] might be included in the Eteo-Cretan district, but Mount Ida is west of Knossos, and Pergamon in the extreme west.[7] The fact, too, that the Phrygians of Classical times were Indo-Europeans proves nothing as to the affinities of the place names of Phrygia. They may have taken words

[1] Steph. Byz. *ad voc.* Kiepert, *Creta.*

[2] *Ibid.*

[3] In Kiepert's *Creta* we find (*a*) in the East—Angáthi, Epíthi, (*b*) in the East centre—Lasíthi, Psáthi, Elûnda ; (*c*) in the Centre—Zînda, Akhendriás ; (*d*) in the West—Arolíthi, Maráthi, Asphéndu. I do not suggest that all, or indeed any, of these names are ancient, but merely that this line of research is not promising as a support for the connection of -nth with Præsos.

[4] Conway, *B.S.A.* viii. pp. 144, 145, 151, 154.

[5] *Ibid.* pp. 136, 145. The disc with ΣΜΩΡ on it, picked up somewhere in the east of the island, hardly helps us.

[6] *Ibid.* pp. 139, 144, 145.

[7] Pliny, iv. 20, 59.

over from the language they found existing there, just as the Greeks did themselves.

If, however, we turn to the supposed Italic character of the termination -nth, we find a difficult problem to deal with. There is no doubt that on both sides of the Adriatic there is a considerable group of words in -nt. Dalluntum, Salluntum, Agyruntum in Illyria, are paralleled by Tarentum, Hydruntum, Uzentum in Calabria.[1] How far have we a right to bring these words in -nt into line with those in -nth and -nd ?[2] If they are, in fact, the same termination, can they point to a common origin, to an original East Mediterranean tongue, or must there have been migration ? If the latter, must it have been from north to south,[3] or may there be something in the tradition that comes to us in Herodotus, of a colonisation of Calabria from Crete itself in Late Minoan days ?[4] Archæological evidence is rapidly accumulating as to the spread of Minoan civilisation on the East Coast of Italy and in the Adriatic at the end of the Bronze Age.[5]

These questions do not yet admit of solution. It is possible that the -entas of the Neikar inscription has

[1] Kretschmer, *E.G.S.* p. 260.

[2] As is done by Conway, *op. cit.* p. 155. Kretschmer, *op. cit.* pp. 402–4, apparently finds it possible to believe, in spite of his other views, that these words in -nt are Indo-European ; as also Κόκυνθος in Bruttium and Σαλύνθιος the King of the Agræans in Ætolia (Thuc. iii. 111). These two last point rather to a common East Mediterranean origin.

[3] As Conway, *B.S.A.* viii. pp. 155–6.

[4] vii. 170, λέγεται . . . ἀπὸ μὲν Κρητῶν γενεσθαι Ἰήπυγας Μεσσαπίους. Cp. Pais's theory that the Messapians were allied to the Greeks (*Storia d'Italia*, i. 335 ff., criticised by Kretschmer, *op. cit.* pp. 272–4).

[5] See above, pp. 34, 125. For L.M. III. vases at Tarentum, as well as in the island of Torcello, close to Venice, see Dawkins, *J.H.S.* xxiv. p. 126. Curiously enough, he does not mention the passage in Herodotus. See, too, Gutscher, *I.D.I.G.* 1904, pp. 13, 20, for L.M. III. influence at Nesactium, in Istria, and Myres (*Y.W.C.S.* 1907, pp. 26–7) for the same at Molfetta, north of Bari.

a direct connection with the Illyrian words in -nt, and only an indirect one, or none at all, with the -nth forms that surround it. On this hypothesis it may still be possible to maintain the view suggested above, that Eteo-Cretan was an isolated intrusive language. If, however, we must connect with it the -nth words as a whole, we must ignore the archæological evidence from Præsos, and regard Eteo-Cretan as co-extensive, at one time or another, with the whole of the East Mediterranean area. If we further maintain that it is Indo-European, we commit ourselves to a view, which we shall discuss in the following chapters, that Minoan civilisation is largely, if not entirely, of Indo-European origin.

Meanwhile, it must be remembered that whether this Eteo-Cretan language be Indo-European is one question, from what date and how widely it was spoken in Crete quite another.[1] The discoveries, however, of Clay tablets in the Linear Script in the Little Palace [2] make it certain that, whether or no the Præsos language was the same as theirs, the Minoan language had not entirely disappeared even in Late Minoan III.

In religion, too, as in language and art, there was continuity even to Late Minoan III. The earlier Aniconic elements had throughout the great periods maintained themselves side by side with a growing anthropomorphism. Mr. Evans believes that the Snake Goddess was not the central object of worship in the Middle Minoan III. shrine, but the marble cross;[3] and in the Late Minoan II. Royal Villa there was built a pillar room similar to that which marked the early stages of the Palace.[4] This parallelism survived the sack of the Palace. The Dove Goddess shrine, in which the double axes rising out of

[1] H. R. Hall, *J.H.S.* xxv. p. 324, when criticising Conway, has perhaps not sufficiently distinguished the two.

[2] *B.S.A.* xi. p. 16. Mackenzie's remarks in *Phylakopi*, p. 271, must thus be modified.

[3] *B.S.A.* ix. figs. 62–3, pp. 91–2.

[4] *Ibid.* fig. 90, p. 150.

"Horns of Consecration" occupy a prominent, or even, in Mr. Evans's opinion, a central position, was used if not constructed in Late Minoan III.[1] The chief new fact to be noticed, during the course of this period itself, is the apparent recrudescence of a more primitive form of the same cult—grotesque fetish figures, which are merely natural concretions of stalagmite, replacing the beautiful porcelains of earlier times.[2]

That the wandering of peoples which made the Ægean the Greek world we know was not over till towards the end of Late Minoan III., is clear from several converging lines of evidence. We need not imagine that the end came suddenly, or that it came upon all parts of the Ægean at the same moment. The vague echoes which reach us from the XXth Dynasty Egypt of Rameses III. show us that at about the year 1200 B.C. "the isles were restless,"[3] and that the shock of migration was felt in every quarter of the Ægean. For a long time past we may be sure that the Northerners had been coming, here in smaller bodies, there in larger, here peacefully assimilating the culture of the older people, there sacking and destroying; in some places driving those among whom they came to win new homes in their turn by conquest of their kinsmen over-seas. The end of Late Minoan III. only marks the time when the old civilisation had been dinted with so many repeated blows that it had at last lost its shape and cohesion; when the traditions of the great art of the royal houses, long growing fainter and fainter, had finally died away; when the Egyptian records no longer hint to us of trouble in the Ægean, but, from at least the tenth century XXIInd Dynasty to the seventh-century XXVIth, totally ignore both its commerce and its peoples.[4]

[1] *B.S.A.* viii. fig. 55, p. 97.

[2] *Ibid.* xi. fig. 4, p. 10. [3] H. R. Hall, *B.S.A.* viii. p. 183.

[4] As already stated (p. 98), we cannot yet determine exactly how far down into the XXIst Dynasty (1100–960) Late

That Crete was markedly affected by the movement of peoples which issued in this result is clear from the witness of the Homeric poems. We find in them a suggestion of mixture of races in other parts of the Ægean area, but nowhere is it so explicit as in the case of Crete. The island, indeed, is thought of as "the mixed land," by a perhaps only half-serious popular etymology.[1] It is the only place, too, in which the poems recognise the existence of Dorians. Just as the tradition which places Minos before Agamemnon is a vague memory of the fact that the great days of Knossos were prior to those of Mycenæ, so here, too, we have evidence that Crete was a prize much fought over by the Northern raiders.

It is possible that, in the sack of Knossos, at the end of Late Minoan II., we should see some such raid, although we have no evidence as to the direction from which the raiders came. Was it from the Adriatic, or from Thessaly,[2] or from the Argolid?

Mr. Evans, who was at first inclined to overestimate the significance of the sack of Knossos, and ascribe to it the total overthrow of the old civilisation in Crete, is now so impressed with the remains of that civilisation which he finds existing in the next period that he goes equally far in the other direction and sees nothing here but "an internal revolution."[3] The fact that the old art, writing,

Minoan III. stretched. The end may have come sooner in some places than in others. We have as yet found only one mention of an Ægean people, the Tchakaray or Zakaray, as late as the XXIst Dynasty, and that in its earliest years. See Hall, *op. cit.* Petrie, *Hist.* iii. pp. 197–201.

[1] *Od.* xix. 170 *seq.* Κρήτη τις γαῖ, ἔστι . . . ἄλλη δ' ἄλλων γλῶσσα μεμιγμένη. Is R. Meister the first (*S.G.W.* xxiv. pt. 3, 1904, p. 63, n. 1) who suggested that there is a play on κρητὴ (κεράννυμι)?

[2] See Andron, *ap.* Steph. Byz. p. 254, *ad voc.* Δώριον. The mixture of races to which he assigned it—"Dorians and Achæans and the Pelasgians who had not set off for Tyrrhenia"—shows how cautiously we must use such traditions.

[3] Contrast *M.R.* March 1901, pp. 121, 131, with *Times*, Oct. 31, 1905, and *B.S.A.* xi. p. 14.

and religion still survive may prove that no considerable body of foreigners settled at Knossos itself after the sack. But the sudden lowering of the standard in art and in wealth, and the recrudescence of more primitive and popular religious beliefs, are much more naturally accounted for by a sudden and fatal blow from the outside to the sea power of the ruling race than by any democratic movement such as Mr. Evans suggests. Indeed, for such a movement bringing national decadence it would be hard to find a parallel in the whole of ancient history, and its existence at this period is from every point of view improbable.

There are indications, too, apart from Knossos, that there were changes in the Ægean world at about this epoch. In the later third city of Phylakopi in Melos, the older type of palace, which resembles that of Knossos, is replaced by another mainland type, resembling that of Tiryns, with a central hearth in its Megaron, and no light-well at the back of it.[1] It is also at least a curious coincidence that the word Keftian, which is used in the early XVIIIth Dynasty for the narrow-waisted Cretans who carry vases of the Palace style, falls after this period completely out of use, and is superseded by various other tribal names belonging to "the peoples of the sea."[2] We have here, perhaps, if we may use the names symbolically, the sea power of Minos succeeded by the sea power of Agamemnon; and in the latter we may see a mainland form of the old civilisation, either forced to expand over-seas by pressure from the north, or itself already hardened and transformed by contact with its invaders, and holding a transitional position between the old culture and the new. If we may indulge in a further piece of symbolism that is perhaps as old as the event

[1] D. Mackenzie in *Phylakopi*, pp. 269–71, and fig. 49, p. 56. Contrast *B.S.A.* viii. figs. 29, 30, pp. 56–7; see above, pp. 79, 80.

[2] Hall in *B.S.A.* viii. p. 175. See above, p. 123; below, p. 202.

itself, Theseus has brought up the ring that Minos has thrown into the sea, "the splendour of gold on his hand." That fantastic story, familiar to us from the poem of Bacchylides,[1] may be an echo of the liberation of the Ægean. Alliance with the sea has been symbolised in some such way by many later Thalassocrats, from Polycrates[2] to Aristeides and the Delian League,[3] from the days when Xerxes was so sadly misinterpreted in his efforts to conciliate the Hellespont, to the yearly marriage of the Doge of Venice with the Adriatic.[4]

Whether the men who sacked Knossos themselves belonged to this kindred mainland form of the old civilisation,[5] or whether they were an early wave of pure Northern blood, we cannot tell. The discoveries in Crete, by showing that the Ægean civilisation derived its inspiration from an island, and not the mainland, have, as we shall see again in the next two chapters, brought one result along with them. They have made it more than ever doubtful whether all parts of the Ægean were permeated, and made "Greek," at the same date, or in the same manner.

[1] Jebb in his comment on Bacchylides xvi. (xvii.) p. 226, says that the ring incident "looks like a free invention of poetical fancy." It is true that it is not certain that it is shown on any of the vases that tell the story, or even in Micon's painting of it in the Theseum (see Frazer, ii. pp. 157–8, ad. *Paus*, i. 17, 3); but A. H. Smith (*J.H.S.* xviii. p. 276) has convincingly shown that Bacchylides's allusive and incomplete way of telling the story of itself shows that the ring is an old tradition, and not his own invention.

[2] Hdt. iii. 41.

[3] Arist. Ἀθ. πολ. 23; Plut. *Arist.* 41. μύδροι thrown into the sea.

[4] See the illuminating article by S. Reinach in *Rev. Arch.* 1905, pp. 1–14, to which I owe my point.

[5] As is held by D. Mackenzie in *B.S.A.* xi. p. 222.

CHAPTER X

CRETE AND THE NORTH

After the balancing of probabilities that has obscured the last half of the preceding chapter, it is satisfactory to remember that in its earlier pages we achieved one solid result. Minoan civilisation as a whole was, we saw, a native growth, rooted in the soil, and Oriental in the sense that Crete itself was an integral part of the East.

Even this conclusion, however, may be seriously modified by a question to which, up to the present, we have made but a bare allusion.[1] Are we to recognise Indo-European elements in the main current of Minoan civilisation? Is it possible that it is of mixed origin, and that early in its history it had its obligations to the North, as well as to the South and East?

Language, which has proved an inefficient guide even for the end of the Bronze Age, will clearly fail us when we try to push still further back. If it be held that the Eteo-Cretan of Præsos was an Indo-European tongue, and that it was intrusive at the end of Late Minoan II.—and of both hypotheses we can only say that they are not improbable[2]—we are no nearer to understanding the language or race of the Minoans. If we could accept the first hypothesis without the second, or neither the one nor the other, we should be near to answering our question; but the data for deciding in either of these directions are quite inadequate. We must turn to physical characteristics, and ask if we can tell anything from the type of the people that we see represented on the monu-

[1] Pp. 154–5. [2] Pp. 151–8.

ments, and the measurements of the skulls that we find in their tombs.

It must at once be admitted that the methods of the old anthropometry are at present out of fashion. The comfortable doctrine that you could sum up the racial differences between human beings by measuring the length and the breadth of their skulls, was sure in time to go the way of all simple but arbitrary classifications. First Professor Sergi of Rome brought confusion and advance into the science by insisting that the curve of the skull, the question whether it is ovoid or ellipsoid or cuboid, is of quite as much importance as the single point of ratio of length to breadth.[1] Then Professor Arthur Thomson of Oxford, following up the hints of earlier anatomists, suggested that this ratio of length to breadth might be altered, within the lifetime of a race, by change of food.[2] This is not the place to describe the ingenious experiments by which he has attempted to prove that heavy food, acting as a weight on the jaw, can make a skull dolichocephalic, while light food can do the reverse. His theories have, however, already been given a practical and historical application by Professor Petrie, who argues [3] that the present brachycephalic inhabitants of Lombardy are the unmixed descendants of the dolichocephalic Scandinavians who settled there in the sixth century A.D. Environment, he believes, has in 1,200 years changed the longest-headed race in Europe [4] into the broadest-headed.

[1] *M.R.* 1901, pp. 215, 256, 263. So J. L. Myres in *S.P.* 1898, pp. 298, 299.

[2] *J.A.I.* xxxiii. 1903, pp. 135–66, with Plate XXIII. I owe the reference to my colleague, Professor David Hepburn, M.D. See, too, his own papers in *C.V.S.F.* 1905, No. 2, pp. 22–3; No. 3, pp. 8–9.

[3] *J.A.I.* xxxvi. 1906, with Plates XIX.–XXVI. Published separately under title of *Migrations*.

[4] There is, however, a markedly broad-headed element in Scandinavia itself. Of twenty-four skulls examined by Professor

These particular conclusions are likely to arouse keen controversy, and the same may be said of Dr. John Beddoe's similar views on colour. His theory,[1] which is endorsed by Professor Petrie,[2] is that the colour of a race is not persistent through long periods if the environment is changed, and that dark races become blond in cold climates, and blond races dark in warm. There is one obvious objection to Dr. Beddoe's theory, an objection that is brought out forcibly in one of his own admirable colour maps.[3] The dark-skinned, dark-haired population of Wales and the west of Ireland is without doubt a survival that has persisted from the earliest times in defiance of climate, and is even now increasing its area at the expense of the intrusive blonds.[4] Yet, on Dr. Beddoe's theory, they ought clearly to prevail over it.

Important, however, as these new theories are, it must be noticed that they are only damaging to a skull-record that is uniform. They give us a note of warning, if we are inclined to draw inferences from the fact that the modern population of the mainland of Greece is long-headed,[5] and that of Crete broad-headed.[6] If, in Crete and the Ægean world, we found a general or local uniformity in Minoan times in one direction or the other, we might have reason to distrust the value of our record. In point of fact, however, the evidence all points to the fact that, from the beginning of the Bronze Age, long-headed and broad-headed people lived together side by side. The broad-headed element has, indeed, increased

Hepburn (*C.V.S.F.* 1905, No. 2, pp. 3–31) fourteen were dolicho-, 5 meso-, and 5 brachycephalic.

[1] *J.A.I.* xxxv. 1905, pp. 219–50, with Plates XVI.–XVII.

[2] *Migrations*, p. 31.

[3] *Op. cit.* Plate XVII.

[4] See *op. cit.* pp. 236–7. Also Ridgeway, *E.A.G.* i. pp. 144, 145.

[5] Ridgeway, *E.A.G.* i. pp. 282, 283. See, however, his rather inconsistent passage on p. 79.

[6] Duckworth in *B.S.A.* ix. p. 355.

by Late Minoan III., and it is thus made still more probable that there was invasion at the end of the preceding period; but the vital point is that it is present, though to a less degree, in both Middle Minoan and Early Minoan. In Late Minoan III. the eight Cretan skulls measured by Professor Sergi [1] and Mr. Hawes,[2] are three of them broad-headed, with a cephalic index of ·80 or over, four mesocephalic, and only one dolichocephalic, with an index below ·76.[3] Dr. Duckworth's ossuaries at Palaikastro [4] give us evidence of a much more extensive character. He was able to measure 78 skulls, 58 of men and 20 of women, and the Kamáres pottery that was buried with them shows that they belong to Middle Minoan II. His measurements show that 63·3 of the men and 70·6 of the women were dolicho-, 26·15 and 23·53 meso-, and 8·55 and 5·87 brachycephalic. From Early Minoan there is no such mass of evidence, but of the eight skulls that Dr. Duckworth and Mr. Hawes have measured from the glen of Hagios Nikolaos near Palaikastro [5] and elsewhere in Crete,[6] four are dolicho-, three meso-, and one brachycephalic. The broad-headed element at an early period is confirmed for other parts of the Ægean by a skull from the second city of Troy,[7] while investigations undertaken by Greek archæologists

[1] *A.J.A.* v. 1901, pp. 315–8. [2] *B.S.A.* xi. pp. 293–7.

[3] I have treated as dolichocephalic indices between ·75 and ·76, as this appears to have been done by those whose investigations I am reporting, and it would be confusing to change their figures. The usual British method of classification, however, is to treat them as mesocephalic. See Hepburn, *C.V.S.F.* 1905, No. 2, pp. 4, 5, quoting Sir William Turner's memoir in the *Challenger* Reports.

[4] *B.S.A.* ix. pp. 350–5. [5] *Ibid.* pp. 344–50.

[6] Koumasa and Hagia Triada, *ibid.* xi. p. 296.

[7] Myres in *C.R.* xvi. 1902, pp. 71, 93, 94, as against Ridgeway, *ibid.* p. 82. See also Boyd Dawkins, *B.S.A.* vii. pp. 150–5. It does not seem certain to what Minoan period the three long-headed Zakro skulls measured by Boyd Dawkins himself should be assigned.

in the islands [1] show that at a period which was at least as early, they differed much among themselves; the broad-headedness of Paros, Oliaros, and Siphnos contrasting with the long-headed Syros and the middle-headed Naxos. For Late Minoan I. and II. there is unhappily as yet no certain evidence, but it is interesting to notice that Mr. Evans considers that the Cupbearer is of the dark, curly-haired, but broad-headed type that is to-day familiar in Crete itself, in the Balkans, and in the Plateau of Anatolia or Asia Minor.[2]

The evidence of skull measurement as to an early mixture of race in Crete is confirmed by a curious feature of the cemetery of Zafer Papoura. Its hundred excavated tombs, which all contained skeletons, though in a condition that is unfortunately too decomposed to be of use to the anthropometrist, can be divided into three distinct classes. There are square Chamber Tombs, with terracotta larnakes or sarcophagi, containing the bones; [3] there are the Shaft Graves that we are familiar with on the Mycenæan mainland; [4] and there are what Mr. Evans calls Pit Caves, such as we find in the East in Cyprus and Syria, in the South in Tunis, and in the West in Sicily and South Italy.[5] They are pits like the Shaft Graves, but deeper, and the contents of the grave are not directly at the bottom of the pit, covered by a slab, but are walled up in a low cave-like receptacle at the side of it. As the depth of the pits varied from about 8 to about 14 feet, ledges were fitted at the side by means of which one could let oneself down to the bottom.

[1] C. Stephanos in *C.R.A.C.* p. 225. Of Paros, etc., the word used in the French is *l'hypobrachycéphalie*. Does this mean "slight" broad-headedness, or is it conceivably a misprint for "hyper-"? No figures are given, but the compound "hypo-" does not at least seem to be used by British anthropometrists.

[2] *B.S.A.* vi. pp. 15–6; *M.R.* March 1901, p. 125; J. L. Myres in *C.R.* xvi. 1902, p. 71.

[3] *P.T.* pp. 3–10, figs. 1–5.

[4] *Ibid.* pp. 11–5, figs. 6–10.

[5] *Ibid.* pp. 15–21, figs. 11a–12b.

These three classes of graves, as they are used at Zafer Papoura, do not mark different stages of culture. They are contemporary, and they are all three found in the earliest phase of the cemetery, that dates from Late Minoan II.[1] Nor are the topographical—or shall we say the geological?—differences that are postulated by the divergence of type found on the actual site, or in Crete as a whole. The Pit Cave people must have originally developed their style of tomb in a flat country, where if a man wanted to have his secret sepulchral cell he had to dig it down vertically into the ground. This would be waste of labour in a hilly country like Crete, where the troglodyte instinct would more naturally be satisfied by burrowing horizontally into the hillside for a rock shelter.[2] Such natural, or partially natural, caves or rock shelters have been found in Neolithic Crete at Præsos[3] and near Palaikastro,[4] and we see, from one of the examples that have survived to us,[5] that they were originally habitations of the living, and not tombs of the dead.[6] An interesting question is whether the square chamber tomb, with the passage or dromos that led to it, is derived from these rock shelters. The rectangular stone-walled Neolithic house near Palaikastro[7] shows that in a stony country wattled huts are not necessarily the only early form of dwelling. On the other hand, the round Tholos tombs from Hagia Triada and from near Gortyna[8] show

[1] *P.T.* pp. 3, 133.

[2] *Ibid.* pp. 18–21.

[3] Bosanquet in *B.S.A.* viii. p. 235.

[4] Duckworth, *ibid.* ix. fig. 2, p. 346.

[5] Dawkins in *ibid.* xi. fig. 1, p. 262. There was here, at Magasa near Palaikastro, an artificial enclosing wall.

[6] See *P.T.* p. 18.

[7] Dawkins, *B.S.A.* xi. fig. 2, p. 263. The Neolithic houses excavated by Tsountas at Dimini near Volo are not described fully enough in *C.R.A.C.* p. 207, for any opinion to be formed as to their shape. See above, p. 56.

[8] See pp. 29, 30.

that by early Minoan times the round hut,[1] on which they were without doubt modelled, was in common use in Crete. At Sitia, indeed, Dr. Xanthoudides has just discovered [2] a farmstead, dating from Middle Minoan I., in which several rooms, divided by party walls of small stones and clay, are all enclosed by an elliptical wall about 85 feet by 49. He plausibly suggests that here we have a survival of the old round hut, divided into rooms by party walls of wood and wicker-work. The important point for us to notice is that both round and square houses appear very early in Crete. Whether they imply different races, as the Pit Caves do, is open to question. There is at least no reason to associate the round hut with the Indo-Europeans, as Professor Tsountas is inclined to do.[3] It may have come from Libya, or it may be native to Crete, as it is to many other remote and unconnected parts of the world. The need for shelter is common to the human race and not only to those who live in a "rigorous climate";[4] and no form of it is more obvious and universal than the wigwam.[5]

We need not discuss here Tsountas's further ingenious suggestion [6] that shaft graves represent a people who originally were lake dwellers, with huts on platforms raised on piles. He would doubtless point to the basements of the Cretan houses as a support to his theory. Whether true or not, it does not affect our present argument, except in so far that such a people must have come from over-seas. There may have been pile dwellings

[1] For the later history of the round hut, see an interesting article by E. Pfuhl in *Ath. Mitt.* xxx. 1905, pp. 331–74. He maintains that it survives in the background of Greek cult, *e.g.* in the Tholos of Epidaurus; but that later it comes into prominence again, and culminates in the Pantheon at Rome.

[2] See pp. 29, 181.

[3] *M.A.* pp. 246–7.

[4] *Ibid.* p. 248.

[5] See the mass of evidence for its wide diffusion in Africa in Ratzel, *H.M.* i. pp. 107–9, iii. pp. 30–77.

[6] See a good summary of it in Frazer, *Pausanias*, iii. pp. 158–9.

wherever there were lakes or swamps, and not only in Central Europe. In summing up the evidence as to their diffusion, Ratzel remarks [1] that in Europe they "call for no artificial hypotheses as to specific pile-building races."

That there were wanderings of peoples in the dim centuries that mark the close of the Neolithic Age is certain. It was about that time that the first Semites were passing up to the north-east to impose their language upon the Sumerian civilisation of Mesopotamia,[2] and the latest discoveries of pre-dynastic Egypt show that in it, too, there were movements from the south-east and the south-west.[3] As Professor Petrie has well remarked,[4] the prevalent notion that in prehistoric times races were pure and unmixed is quite without foundation. Before the days of agriculture and the settled habits of advanced civilisation, there was more migration, not less.

What the racial movements of the Ægean were we do not know. In his latest remarks upon the subject,[5] Mr. Evans talks of "Anatolian, South European, and perhaps Libyan elements" as contributing to the formation of the Minoan race. We may take for granted that the dominant element belonged to the dark-skinned, long-headed Mediterranean race. Where the broad-

[1] *H.M.* i. p. 111.

[2] See Hilprecht, *E.B.L.* 1903; Hall, *J.H.S.* xxv. p. 323; Sayce, *A.C.I.* 1907, pp. 67–100. E. Meyer, *S.S.B.* 1906 (pp. 69, 107–15), has brought forward the revolutionary view that throughout early Mesopotamian history the North (Akkad) belonged to the Semites, the South (Sumer) to the Sumerians, although at different stages they influenced each other. The Sumerians, he thinks, were probably the later arrivals. His arguments are purely archæological, being based on type of face, cut of hair and beard, costume, etc. It will be interesting to see the attitude of the Assyriologists.

[3] Petrie, *Hist.* i. 1903, and *J.A.I.* xxxi. 1901, pp. 248–55, with Plates XVIII. to XX.

[4] *J.A.I.* xxxi. 1901, p. 248.

[5] *P.T.* p. 132.

headed element came from we cannot tell. That it exists to-day in the highlands of Asia Minor, as well as in the Balkans, is in itself no proof that it was native there; but there is no warrant for assuming that all broad-headed people came from the North, or that in race or language they must have been Indo-European. The Sumerians of Mesopotamia seem to have been themselves broad-headed,[1] and excavation has shown that there were such elements in the early population of Asia Minor.[2] Any attempt indeed to equate the words "broad-headed" and "Indo-European" is self-convicted, as it has to allow that the dominant element[3] in one of the most characteristic of the Indo-European peoples, the Scandinavians, is longer-headed than any race in Europe.

Skull measurement, then, does not tell us whether Minoan civilisation owed anything to the North. Can we learn anything from the type of figure represented on the monuments, or from manner of life, as we see it in art?

Professor Petrie would answer[4] by drawing our attention to the narrow Minoan waist, which, as we have seen,[5] is so characteristic that even the Egyptians recognised the fact. In his researches into the invasions of the Roman Empire from the North, he has come across a passage in Eunapius,[6] and another in Apollinaris

[1] Sayce, *A.C.I.* 1907, p. 73. E. Meyer, *S.S.B.* 1906, p. 90, 114, denies that they are hyperbrachycephalic. But his own Plate VI., a head from Tello, now in Berlin (p. 41), is without doubt brachycephalic, even if we consent to omit the "hyper."

[2] For Körte's excavations at Boz-Eyuk in Phrygia, see *Ath. Mitt.* xxiv. 1899, pp. 1 *seq.* and references *ap.* Crowfoot, *J.H.S.* xix. p. 49. It is sometimes called the "Armenoid" stock.

[3] See above, p. 164.

[4] *Migrations*, p. 20.

[5] P. 94.

[6] Pp. 46–48: espc. *κατὰ δὲ τὸ μέσον διεσφιγμένα ἦπερ φησιν Αριστοτέλης τὰ ἔντομα.*

Sidonius,[1] which state that the Goths in general, and King Theodoric in particular, were very tall men with long flowing wavy hair, prominent chests, and waists pinched in "like insects." The description is, it may be granted, startlingly reminiscent of the Boxers from Hagia Triada and the Hunters from Vaphio. Yet it is rash, on the strength of such a resemblance, and the place names Gathæi in Arcadia, and Gutheion in Laconia, to suggest a "Gothic" invasion of the Ægean at some date before 1500 B.C.[2]

The narrow waist is in origin only an artistic convention.[3] It was an inheritance, perhaps, from the fiddle-shaped idols of the Cyclades,[4] where the exaggerated outline was an attempt to imitate life. Such an expedient is common to primitive art; it is found, for instance, on the rude Dipylon vases of the geometric period.[5] In fully developed Minoan art it was in all probability used to give an impression of strength and agility; it is certainly highly successful in doing so. There is a curious analogy from the Japan of the eighth century A.D.[6] which was not, I believe, invaded by Goths. An old man is singing what a gallant he was in the days of his youth, when maidens gave him fine blue silk girdles to make him gay,

> . . . and narrow girdles
> Of outland Kara fashion.
> As slim I was then
> As any wasp that soareth.

It is consistent, however, with this view as to the con-

[1] Ep. i. 2, *recedente alvo pectus accedens.* I owe the references to Dr. T. Hodgkin. [2] Petrie, *op. cit.* p. 20.

[3] So D. G. Hogarth, *Cornhill*, March 1903, p. 327.

[4] See *e.g. Phylakopi*, Plate XXXIX. Nos. 18, 19; *S.S.* fig. 127, p. 128 (Tiryns). The Beastmen, it may be noticed, have markedly narrow waists; e.g. *B.S.A.* xi. fig. 10, p. 18; *J.H.S.* xxii. fig. 12, p. 80.

[5] *E.g.* Perrot and Chipiez, vii. fig. 66 = Hall, *O.C.G.* fig. 61, p. 249.

[6] The Manyoshiu. F. V. Dickins, 1906, Oxford. Book XVI. Part I. No. 203.

ventional origin of the narrow waist, to allow that the Minoans may in course of time have actually come to accept it as a badge of race. It was the regular way in which they saw themselves portrayed, while Egyptian men always looked quite different. The Egyptians, as we have seen,[1] accepted it in the same light. It is possible that the belief was fostered by attempts to imitate the athletic figure by an extra tightening of the girdle. It can hardly be a coincidence that the priest bearing the sistrum on the Hagia Triada vase has a waist that is distinctly *not* drawn in. It is an extra touch to denote that he is not a native Minoan, but an Egyptian.[2]

It would be more easy to answer the general question raised by Professor Petrie's suggestion, if we knew more about the height of the Minoans. If we can judge from the bones measured by Dr. Duckworth at Palaikastro, the average height in Middle Minoan II. was barely 5 feet 4 inches, which is a good two inches shorter than that of the present broad-headed population.[3] There do not seem to be data for determining whether the broad-headed element at the earlier period was taller than the rest.

There is no doubt that in some of the Late Minoan vases, especially the Boxer vase from Hagia Triada (Plate I.), we get an impression of tallness; but it is difficult to determine how far we can press this, when it is absolute, and not relative to other natural objects. Our impression may be mainly due to the same desire to express a slim athletic figure that accounts for the narrow waist. The men on the Vaphio cups, who are clearly of the same stock as those on the Boxer vase, do not loom large in relation to their bull. On the second zone from the

[1] P. 94.

[2] P. 36. The naked men without the loin-cloth on the silver cup from Mycenæ representing a siege have also normal waists (Gardner, *N.C.* p. 66).

[3] *B.S.A.* ix. p. 355.

top on the Boxer vase, this relative smallness of the human figure is still more accentuated; yet it is due to the very artist who, immediately below and above, has given us the human types that impress us as so tall. It may be answered that the comparative smallness of the man who is being tossed by the bull is due to considerations of space; the bull is the real point of the scene, and the man has to be got in anywhere, and even as it is, has almost trespassed on the zone above him. The argument is sound, but it applies equally to the other zones, where the men are the principal figures; and we have as little right to infer tall men as enormous bulls. Where, too, two men are represented as differing in height, as on the Chieftain vase,[1] it is economy of space and the desire to fill the field that must be held accountable; the sword-bearer is shorter, because there has to be room for his helmet.

Another possible test for estimating height is suggested by Professor Ridgeway,[2] and at first sight seems a promising line of investigation. If the back is made for the burden, the sword ought to be made for the hand; and if we can judge *ex pede Herculem*, we should be able to estimate the height of the warrior by the space left between pommel and blade for his hand-grasp. On this principle Professor Ridgeway draws interesting comparisons between the bronze swords of Mycenæ and the bronze and iron swords of Central Europe, and concludes that the latter were meant for a taller race. That the men of Hallstatt were, in fact, taller is likely enough, but it is doubtful whether we can prove it on these lines. It is in the first place difficult to draw inferences from different types of sword. If the pommel comes out sharply at a right angle to the part of the hilt grasped

[1] P. 38.

[2] *E.A.G.* i. pp. 304, 409, 415–6. Professor Ridgeway has kindly informed me that by "grip" he means in every case the length of space for the hand, not the thickness of the hilt grasped.

by the hand, as it does in some of the Hallstatt examples,[1] the space for the hand is restricted. If, on the other hand, the pommel is approached by a gradual curve, as it is in the Knossos swords,[2] the hand is able to spread upwards, and indeed naturally does so, as any one may prove for himself by holding a stick with this kind of top. The same argument applies to the lower curve of the hand-grip, where it abuts on the blade. The length of the hilt as a whole is also partly determined by artistic considerations. The long sword from the Chieftain's grave at Zafer Papoura was found side by side with a short sword, and was clearly used by the same man.[3] The reason that its hilt is longer is not because it was meant for a taller man, but because otherwise it would have looked out of proportion to the total length of the sword. Although, therefore, in point of fact we find that the hand would have had $3\frac{1}{8}$ inches space on the short sword from the Chieftain's grave, and $3\frac{3}{4}$ on the long sword,[4] a length not inferior to that of many of the Northern bronze and iron swords,[5] it would be dangerous to infer that they were made for as tall a race. Nor without fuller knowledge of the type of hilt and pommel represented by the Mycenæ swords that Professor Ridgeway quotes,[6] can we bring them into the comparison.

In regard to the height of the Minoans, then, our position must be an agnostic one ; we cannot claim that on this score there is evidence as to infusion of Northern

[1] *E.A.G.* i. fig. 70, p. 414, Nos. 1 and 2.

[2] *P.T.* figs. 58–9, pp. 56–7.

[3] *Ibid.* fig. 53, p. 53.

[4] These are rough measurements taken from a combination of pp. 55–7 with Plate XCI. Mr. Evans does not himself enter into the point.

[5] Ridgeway, *op. cit.*

[6] *E.g.* the reconstructed hilt of *S.S.* fig. 230, p. 233, has a pommel coming out at a right angle and allowing no spread for the hand.

blood before the end of Late Minoan II. We should be led to the same position if we discussed certain other possible test points, such as the length of the thrusting sword. The daggers of the earlier periods grow naturally into the short swords and long swords of Late Minoan I. and II; there is no change in the rapier type.[1] So, too, changes in the way of fastening the hilt to the blade need no foreign influence to account for them. The older style in which the handle was made separately, and riveted on,[2] was insecure. It was an improvement for fighting purposes to make the whole sword in one piece, so that the hilt was solid and could not come off in the hand. This change brought with it the making of a flange or raised border round the hilt to keep in position the gold or ivory overlay. Whether this flange went part of the way,[3] or all the way,[4] round the hilt, depended on artistic, and not on military considerations. To have the flange the whole way round gave you greater security for your valuable pommel, but no firmer grip on your sword. A glance at the eight Zafer Papoura swords, as figured together on one plate,[5] will show clearly enough that we have among them natural varieties, but no new type. The contrast to a group of Northern swords, as figured by Professor Ridgeway,[6] is striking.

It is different with the appearance of the leaf-shaped cutting sword, broader at the centre of the blade than

[1] *E.C.* p. 9; *P.T.* p. 113. A different view is taken by J. L. Myres, *C.R.* xvi. 1902, p. 70, but before the Cretan evidence was accessible.

[2] *P.T.* fig. 111, p. 107 = Plate XCI. No. 44b.

[3] As in *P.T.* fig. 110a p. 106 = Plate XCI. No. 44a.

[4] As in fig. 94, p. 84 = Plate XCI. fig. 95e. This—a dagger—is the only example at Zafer Papoura. See *ibid.* p. 112.

[5] *P.T.* Plate XCI.

[6] *Op. cit.* fig. 70, p. 414. J. L. Myres, *C.R.* xvi. 1902, p. 72, claimed a Northern origin for the flanged type. This, however, is now against the evidence. See J. Naue, *V.S.* 1903, p. 10 *seq.*, and references above. It was the broadening of the blade for cutting that came from the North.

at either end, on the inventory Clay Tablets of Late Minoan II.[1] Here we have at last a point which we can claim with certainty as proof of Northern influence.[2] It is a remarkable fact, however, that no actual sword of this type occurs among the two long swords and six short swords that were found at Zafer Papoura,[3] nor is it the type of sword carried on the Late Minoan I. Chieftain vase.[4] Its appearance on the Clay Tablets may mean nothing but a detached piece of commercial enterprise, or the fruit of a distant foray.[5]

That the foray may have been by Northerners into Crete, and not by Cretans into the North, is of course possible. There were catastrophes, as we have seen,[6] in the history of the Palace, at the end of all the three Middle Minoan periods; nor can we deny them earlier. Whether one or all of them were due to changes in the balance of power in Crete itself, or in the kindred Ægean world, we cannot tell. That foreign non-Ægean influences were once or more at work is *a priori* quite possible. The important point to notice is that such intrusive elements were not sufficient to exercise a controlling influence. For this we can rely with safety not only on the general Oriental character of Minoan art, but on the Southern habits of the Minoan people. As has already been pointed out,[7] the loin-cloth, as the sole article of

[1] *B.S.A.* viii. fig. 54 b and c, p. 94. Mr. Evans does not mention them when discussing the Zafer Papoura swords in *P.T.*, but he has kindly informed me that the Tablets are probably Late Minoan II.

[2] *P.T.* p. 113; J. Naue, *V.S.* 1903, p. 12 *seq.*, and *Nachtrag*, p. 92.

[3] *P.T.* Plate XCI.

[4] See p. 38.

[5] See, however, below, p. 183.

[6] Pp. 58, 61, 84.

[7] *Apropos* the bronze statuettes from Tiryns and elsewhere, Hall, *O.C.G.* pp. 277–8, 308; Evans on label in Ashmolean. We need not here discuss the question as to how far other loin-cloths differ from those of the Minoans. (J. L. Myres on Helbig in *C.R.* x. 1896, p. 355.)

clothing, is an Egyptian custom; and although the Cretan house differed from the Egyptian in the use of timber, and in the absence of the awning, which would never have stood the Cretan winds,[1] it is like it in having no fixed fireplace.[2]

Such considerations, however, do not apply with equal force to the Argolid and the Greek mainland in general. Before the discoveries in Crete, there was no danger in talking of the Ægean as a whole. What was true of one "Mycenæan" site, was presumably also true of all the others. When we had shown that "Mycenæan" art was neither wholly Egyptian, nor wholly Asiatic, nor in any sense Phœnician, we had proved it to be the native art of the Ægean world as a whole. This is still the assumption that underlies many archæological discussions to-day. In reality, however, the question of the unity of the Ægean world is now reopened. There was nothing in the remains at Mycenæ that could warrant the belief that it was the sole creator of "Mycenæan" art, and that the extension of that art to other parts of the Ægean was due to borrowing or importation. Crete dominates the Ægean in quite a different way. Its art is without doubt native to it, and its Oriental character is naturally explained by the geographical position of the island. Its artistic development, too, is continuous, and for a period of time which at the lowest estimate exceeds one thousand years there are no considerable gaps in the series. Some of the stages in this development—the Polychrome Kamáres pottery of Middle Minoan II. is a conspicuous example—are practically unrepresented on the mainland;[3] while even in the

[1] *B.S.A.* viii. pp. 18, 19.

[2] *Ibid.* vii. p. 24. Noack, *H.P.* 1903, p. 34

[3] In *Ath. Mitt.* xxxi. 1906, pp. 368–9, it is stated that Dr. Sotiriades has just discovered at Drachmani (Elatea) in Phocis pottery allied to the Kamáres type. Till it is published we cannot be sure what this means. For its rare appearance at Tiryns, see above, p. 42.

islands the one exception is Melos, which came into specially close relations with Crete itself.[1] Some of the most beautiful objects of art, too, that have been found on the mainland, the Vaphio cups for instance, and the Palace style vases from Vaphio and Mycenæ, are without a doubt importations from Crete.[2] Where are we to draw the line? What are to be our criteria?

The question that is thus raised does not admit of an easy answer. It is clear that some of the arguments that were valid against Dr. Helbig's old view that "Mycenæan" art was an importation from Phœnicia[3] do not apply to the view that it was an importation from Crete. In Crete we have actually got a great artistic and manufacturing centre for stone carving, frescoes, pottery, porcelain, metal work, gems. The weakness of the Phœnician claim was that it could not be proved that Phœnicia was the original home of any such industries, whatever part it played in distributing their products. Another weakness that Dr. Helbig himself acknowledged in his own theory, that it only applied to portable objects, does not hold good in the present case. The Bull-baiting fresco at Tiryns,[4] and the Flying Fish fresco in Melos,[5] were clearly carried out on the spot; but there are few things that suggest more certainly the Cretan artist. Even the interesting point raised by Mr. Myres,[6] that the use of local clay implies the manufacturing of pottery on the spot, hardly avails us here. Even if artistic inspiration was entirely due to Crete, there would naturally be local imitation on a humbler scale; and the connection of Crete with its neighbours would *ex hypothesi* be intimate and continuous, and there would be Cretans at work all over the Ægean.

[1] Pp. 14, 63, 85, 149. *Phylakopi*, figs. 126–33, pp. 149, 150. The Kahun pottery also does not affect the argument.

[2] Pp. 33, 87.

[3] *Q.M.* 1896.

[4] *S.S.* fig. 111, p. 120.

[5] P. 20.

[6] *C.R.* x. p. 353.

We must in any case grant that there are certain points in which Crete and the mainland definitely differ. Dr. Noack [1] has rightly called attention to the fact that the type of Palace that we find represented at Tiryns [2] and Mycenæ,[3] at the island of Gha in Lake Copais,[4] and in the Second City of Troy,[5] is quite unlike what we see at Knossos and Phæstos. There are, indeed, points in which Dr. Noack has been proved to be wrong. His attempt to contrast the number of columns that gave entrance to the Hall or Megaron on the mainland and in Crete [6] has been shown by Dr. Mackenzie [7] to be contrary to the evidence. Whether or no the Cretan Megara had two doors for their broad frontage, and the narrow-fronted deep Mainland Megara only a single door, they were not in point of fact in the former case on each side of a central column, and in the latter between a pair of columns. Cretan architects used for their Megara one column, or two, or three, indifferently. It is also unfortunate that Dr. Noack, at the end of his book,[8] accepted Dr. Dörpfeld's view that the mainland type of Megaron can be found in the later stages of the Cretan Palaces. Even if that view had been justified by facts, it would not have strengthened Dr. Noack's general position; and as it is conclusively disproved,[9] there is the danger that it may appear to involve in its downfall what is not in reality bound up with it.

A solid result that remains from Dr. Noack's investigations is that the Mainland Palace was developed out

[1] *H.P.* 1903, pp. 1–36.

[2] *Ibid.* fig. 3, p. 7 (= *S.S.* Plan IV. p. 132).

[3] *Ibid.* fig. 4, p. 8 (= *S.S.* Plan V. p. 298).

[4] *Ibid.* fig. 9, p. 19 (= *B.C.H.* xviii. 1894, Plate XI.). Noack identifies it without hesitation with Arne. De Ridder (*B.C.H.* xviii. p. 309) was less confident.

[5] *Ibid.* fig. 8, p. 16 (= Dörpfeld, *T.I.* i. fig. 23, p. 81; *S.S.* App. Plan VII. p. 348).

[6] *H.P.* p. 9 *seq.*

[7] *B.S.A.* xi. pp. 186, 196.

[8] *H.P.* pp. 90–1.

[9] See pp. 78–81.

of a narrow-fronted, one-roomed house.[1] So persistent was the tradition of the single big living room, with its vestibule or ante-room leading into it, that when life got more complicated, and there was need for more rooms, the desired result was attained, not by altering the plan, but by repeating it one or more times over, and joining the various "suites" by passages. The simplest form of Greek Temple is a direct descendant of this "Mycenæan" Megaron.[2]

The Cretan Megaron, on the other hand, with its broad front, was shown by Noack to be akin to the Oriental house, as found in Egypt and Syria.[3] We may go further, and see from the many-roomed houses of the people at Palaikastro [4] or Vasiliki,[5] that the one living-room was never the rule in Minoan Crete. It is possible that Dr. Xanthoudides's suggestion as to the significance of the farm at Sitia [6] may give us the clue to the difference. The original round hut, or rectangular stone house, may in Crete have been divided up, almost from the start, by party walls. It may be from this custom that there developed the many irregularly grouped rooms, leading freely one into the other, that are the direct prototype of the Palaces of Knossos and Phæstos.[7]

There is a further point in which the mainland type, except at Gha, differs from the Cretan. There is a fixed hearth in the centre of the Hall. The difference is without a doubt due to a need for warmth. Is the climate of Greece itself inclement enough to have created the need, or must we imagine that it is an inheritance from a more Northern home ? [8]

[1] *H.P.* pp. 19–27.
[2] *Ibid.* p. 27.
[3] *Ibid.* pp. 28–34.
[4] *E.g.* Bosanquet, *B.S.A.* viii. fig. 23, p. 310, House B.
[5] See p. 57.
[6] See pp. 29, 169.
[7] See pp. 5, 28.
[8] Noack takes the latter view (*op. cit.* p. 35), but quotes for the former the following interesting passages from the *Odyssey*: xiv. 457, 475–6, 518, 529–30; xix. 64.

In regard to the distinctive appearance and habits of the mainland "Mycenæans," we know but little, except that they often wore beards, while the Minoans shaved.[1] Gems and frescoes and gold cups are all suspect, as coming from Crete. The Warrior Vase from Mycenæ [2] and two vases from Tiryns with naked rudimentary figures [3] date almost certainly from the end of Late Minoan III., and do not come into the argument. The men defending the city on the silver cup come from the Shaft Graves on the Acropolis of Mycenæ,[4] and belong to a much earlier period. The naked figures without loin-cloth or flowing hair or narrow waist, the cylindrical shield,[5] and the conical tasselled cap,[6] are all points on which we need further light. Yet the trees are olive-trees, and a figure-of-eight shield, used as a handle rivet, reminds us we are in Minoan environment. In spite, too, of the rudeness of the representation of the human figure, the masonry of the city is more

[1] *P.T.* pp. 116–7. In his attempt to distinguish Sumerians and Semites in Babylonia, E. Meyer (*S.S.B.* 1906, pp. 9–11, 21–6, 42, 54, 80), makes much—perhaps too much—of this criterion.

[2] *S.S.* figs. 284–5, pp. 281–2.

[3] *Ibid.* figs. and pp. 131–2. The two men in the second of these have a tail which is either an attempt to represent the loin-cloth or a skin thrown over the shoulders.

[4] Grave IV.; see Gardner, *N.C.* p. 66, Frazer, *Pausanias*, iii. p. 111; originally published by Tsountas, Ἐφ. Ἀρχ. 1891, Plate II. 2.

[5] Seen also on the ring found in the same grave, *S.S.* fig. and p. 221. It is also carried by the armed God in the clay Seal impression from Knossos, *B.S.A.* ix. fig. 38, p. 59.

[6] A peaked hat without a tassel is worn by the God on the seal mentioned in the preceding note, and also by the Goddess on another seal from Knossos (*ibid.* fig. 37), and on some from Hagia Triada (*ibid.* p. 60). For Evans's remarks on the "Hittite" character of such a cap, see *J.H.S.* xxi. p. 125. In denying, however, that it was ever worn by a "Mycenæan," Hall (*O.C.G* p. 308) overlooked the silver cup.

regular than that of Mycenæ and Tiryns,[1] and suggests that of Knossos itself, or the walls of the Sixth City at Troy.[2]

The naked figure, without loin-cloth or flowing hair or narrow waist, occurs on two other early objects from Mycenæ, the Stone Slabs from over the fifth Shaft Grave.[3] Their art is so rude that we can infer nothing from this nudity as to what their makers wore or did not wear in actual life; as has been well remarked,[4] nudity is the original form under which all nations, in the beginnings of their art, portray the human figure. It is more significant that one of these figures carries the very type of leaf-shaped sword or dagger that we noticed on the Clay Tablets of Late Minoan II. He is a man on foot, who is being charged and speared [5] by a man on a chariot. If, as seems to be the case, no actual weapon of this broadsword type has been found at Mycenæ, any more than in the Zafer Papoura Cemetery, is it possible that it is given this man *in character*, as a representative of the invaders from the North? The charioteer's sword, whether of design or not, is broad at the hilt, but it tapers sharply, and is distinctly of the rapier type.

[1] So A. Lang, *H.A.* 1906, p. 85.
[2] Dörpfeld, *T.I.* i. Beilage 20–2, pp. 136–7, 144.
[3] *S.S.* figs. 145–6, pp. 170–1.
[4] F. Poulsen in *J.D.A.I.* xxi. 1906, p. 207.
[5] This is almost certainly the correct view. See *S.S.* p. 173.

CHAPTER XI

THE NEOLITHIC POTTERY OF SOUTH RUSSIA AND CENTRAL EUROPE

BEFORE we sum up the results of this line of argument, it will be well to describe certain discoveries, made outside the Ægean area, to which it is mainly due that the relation of the Minoan civilisation to the North is now a burning question.

It has been known for many years [1] that pottery of an advanced character has been found in Central Europe in what is apparently a Neolithic environment. The evidence, however, has of late rapidly accumulated, and the inferences that have been drawn from it by Dr. Hubert Schmidt [2] and Professor von Stern [3] vitally affect our conceptions as to the origin of Ægean culture. The finds extend over a huge area, which at its northern limit is nearly nine hundred miles from east to west. The north-eastern point is in the district of Tchernigof, north-east of Kief in South Russia,[4] and the area stretches to the west at least as far as North Bohemia.[5] A point at the same latitude between the two, but nearer Russia than Bohemia, is found on the Upper Dniester in

[1] *E.g.* Wosinsky's work on Lengyel was published as long ago as 1888.

[2] *Z. f. Ethnol.* 1903, pp. 438–69; 1904, pp. 608–56; 1905, pp. 91–113.

[3] *P.K.S.R.* 1905. It is published in duplicate in Russian and German bound up together.

[4] *Ibid.* p. 73. Mr. Chwoiko's excavations.

[5] Hoernes, *N.K.O.* 1905, figs. 189–95, p. 72. In *ibid.* figs. 216–7, p. 86, there are elementary spirals and concentric half-circles from Neolithic pottery as far west as Wiesbaden and

Galicia.[1] This long northern line may be considered as the base of a triangle whose sides run southwards towards an apex in the Ægean Sea. On the east the line of the finds runs south-east through Podolia and Bessarabia [2] into Roumania,[3] where it is joined by an east central line that comes down through Bukovina [4] and Transylvania.[5] In the extreme west the finds come down through the Attersee and Mondsee in Upper Austria [6] to Trieste,[7] and thence to Bosnia.[8] In the centre a line stretches from Lengyel, south of Buda Pesth,[9] down into Servia.[10] That the western Bosnian line cannot yet be extended down the Adriatic may only be an accident which future excavation will rectify, but the eastern line has a natural extension at Jamboli in Eastern Roumelia,[11] in the First City of Troy,[12] and in the Necropolis of Jortan,[13] on the Upper Valley of the Caicus in Mysia.

Ilbenstadt in Germany. From his *H.I.G.* 1904, we imagine that Dr. M. Much would like to bring these into line in support of Schmidt's and Von Stern's views.

[1] *Ibid.* figs. 251–83, pp. 114–9, Horodnica and Bilcze. See Von Stern, *P.K.S.R.* p. 74.

[2] Von Stern's own finds at Petrény.

[3] Cucuteni, etc. (Von Stern, p. 77).

[4] Schipenitz in the valley of the Pruth (Von Stern, p. 77).

[5] Tordos (Schmidt, *Z. f. Ethnol.* 1903, pp. 438–69) and Kronstadt (Teutsch *ap.* Schmidt, *ibid.* 1904, pp. 637–43). Also Hoernes, *op. cit.* figs. 25–72, pp. 19–26.

[6] Hoernes, *op. cit.* figs. 123–35, pp. 51–5.

[7] Gabrovizza and Duino (Hoernes, *op. cit.* fig. 118, p. 48).

[8] Butmir (Hoernes, *op. cit.* figs. 1–7, pp. 7–10).

[9] Wosinsky, *Lengyel*, 3 vols. 1888–91; Hoernes, *op. cit.* figs. 19–22, p. 11; Von Stern, p. 75.

[10] Jablaniza or Jablanica (Hoernes, pp. 29, 30; W. Vassits and other authorities *ap.* Von Stern, p. 78, note 2). For the interesting Clay Figurines of female figures from Kličevac, see Hoernes, figs. 85–6, p. 31.

[11] Jérôme in *Rev. Arch.* xxxix. 1901, pp. 328–49.

[12] H. Schmidt, *op. cit.*

[13] *C.R.A.I.* 1901, pp. 810–7. Description by Collignon of finds of Paul Gaudin.

The central line too seems to be continued in the Neolithic remains at Volo in Thessaly.[1]

It is not meant to suggest that the pottery over the whole of this area is of the same type.[2] It is indeed not easy to tell what some of the types are like, as few of them are published in colours, and the originals are scattered over half the museums of Central Europe.[3] There is, to the best of my knowledge, not a fragment of the kind in any museum in Great Britain, except a few specimens of Professor Tsountas's discoveries at Volo, and even Athens has got nothing but this Volo pottery. The best representative collection is probably in the Natural History Museum at Vienna, and it is thither that archæologists must make their pilgrimage, unless the museums of Central Europe, as indeed would be a most graceful act, send of their bounty to Athens. It will be necessary that some archæologist who has the designs and processes of Minoan pottery at his finger-ends—if possible, one of the Cretan excavators themselves—should go the round of Central Europe and make a careful study of the originals before any final opinion can be passed on them. The following account is given tentatively and with all reserve. It is not yet clear what are the principles of classification that correspond to differences of date and locality. We may agree, for instance, with Dr. Hoernes [4] that Dr. Wosinsky [5] is not justified in classing together all kinds of incised pottery with white filling, and regarding it as a true differentia ; but we must remember that Dr. Hoernes's own

[1] Discovered at Dimini and Sesklo by Tsountas. For a short account see Von Stern, *op. cit.* pp. 82–3.

[2] So Von Stern, *op. cit.* p. 84, admits that in the western portion of the area the differences are more than the points of contact.

[3] *E.g.* Kief, Odessa, Lemberg, Szegzárd, Klausenburg (= Kolosvar), Vienna, Sarajevo, the Louvre (finds of Jortan), and the chief museums of the Balkan states.

[4] *Op. cit.* pp. 36–8.

[5] *I.K.* 1904.

distinction of ornament that covers the whole field of a vase,[1] and ornament that divides it into sections,[2] is not meant by its author to be decisive for our purpose ;[3] and we may doubt whether Dr. Schmidt does not lay too great stress on this use of white paint on the flat.[4]

Certain points, however, emerge that are common to a great mass of the pottery concerned. It knows the use of painting on the flat, as well as of white filling for incised lines ; and it is ornamented, not only with rectilinear geometric designs, but with spirals of the most elaborate character. The graves in which the pottery is found are in most cases entirely free of any trace of metal. In only one case, that of the cemetery of Jortan on the Caicus,[5] are the metal finds numerous enough to prove that we are dealing with a civilisation that is in a stage of transition between the Neolithic and the Bronze Age.

Some of this pottery, too, is beautiful. The word can be used without exaggeration of the vases of Galicia [6]

[1] His "Umlaufstil," pp. 7–31.

[2] His "Rahmenstil," pp. 31–45.

[3] *Op. cit.* p. 34. On p. 124, Dr. Hoernes rightly points out that many different factors—character of implements, dwellings, etc., as well as style of pottery—must be taken into consideration before questions of date and influence can be determined. How far his own distinction between the older Mediterranean plain dwellers and the later Indo-European mountaineers (pp. 124–6) is justified by the remains, can only be determined by further investigation.

[4] Though he objects to the catch-words (Schlagworten) Schnur- and Band-Keramik, his own insistence on the single point of Weissmalerei is just as one-sided. Cp. *Z. f. Ethnol.* 1904, p. 653, with *ibid.* 1903, p. 460. Curiously enough there is no white paint at Petrény (Von Stern, p. 58), and the designs are all dark on a light ground.

[5] *C.R.A.I.* 1901, p. 814. See also Schmidt, *Z. f. Ethnol.* 1904, p. 648. For the uncertainty as to whether Troy I. was purely Neolithic, see below, p. 193.

[6] See Hoernes, *op. cit.* figs. 251–83, pp. 114–9.

and South Russia. Professor von Stern's discoveries at Petrény in Bessarabia, admirably illustrated as they are in his coloured plates, show shapes and designs that are beyond anything that we are accustomed to associate with Neolithic culture. Sometimes the design is painted in black or violet-brown on the hand-polished surface of the clay ; more usually it is applied when the clay has already been covered with a painted slip, yellow-white, red, brown, or yellow. The design itself is sometimes yellow, or light red, instead of black or brown. If we may judge from the coloured plates, violet-brown on a light reddish-brown is the dominant combination. The design is generally monochrome, but in one variety black and red are used together on the same vase.[1]

Petrény is not only remarkable for its elaborate spiral designs. Its pottery differs from that of all the other Central European sites [2] in the fact that it is decorated with motives from the organic world. These are not only fir cones,[3] but figures of animals, such as a goat,[4] a bull,[5] and, quite commonly, a dog.[6] In three cases we have actually the whole or part of a human figure,[7] and two more are represented in the neighbouring finds of Mr. Chwoiko at Tripoljer, near Kief.[8] The representation of man cannot be said to be so successful as

[1] Von Stern, pp. 61–2. At Dimini one vase has a design in three colours, white, black-brown, and red (*ibid*, p. 83.)

[2] *Ibid.* pp. 63–4. Sayce, *A.C.I.* 1907, p. 47, mentions that De Morgan found animal figures on pottery of the end of the Neolithic Age at Susa, especially ostriches, as on prehistoric ware of Egypt.

[3] *Ibid.* Plates VIII. 1, XI. 11, wrongly numbered in the text p. 64.

[4] *Ibid.* Plate XI. 12a, text p. 65.

[5] *Ibid.* Plate VIII. 3, wrongly numbered in the text p. 66.

[6] *Ibid.* Plates IX. 5, 8, 9, XI. 12b, wrongly numbered in the text p. 66.

[7] *Ibid.* Plates II. 3, IX. 4, 6, text p. 64.

[8] *Ibid.* p. 64.

that of bull and dog ; the latter are treated in a free and vigorous naturalistic spirit.[1]

It was pure art that distinguished these South Russians. They were not an industrial or scientific people, and had made little progress in material civilisation.[2] They lived in rectangular clay huts, strengthened perhaps at the sides by palings and hurdles, and covered with a roof of wood and clay. Such at least were their houses of the dead, and they were probably modelled on those of the living.[3] They cremated their dead, and placed the ashes in an urn within a clay hut, but Professor von Stern believes that they had only just passed out of the stage of burial interments.[4] The sole trace of metal found among all the graves was one pure copper axe, and they had not made much progress even in the shaping of their stone implements and weapons.[5] Artistic, too, as was their pottery, they had never learnt the use of the potter's wheel.[6]

What is the relation of this Neolithic civilisation to the early art of the Ægean ? There are three possible theories. The first, which is supported by Dr. Wosinsky,[7] is that the northern culture is derived from the Ægean. In this case we must imagine that Neolithic Austria or Russia means chronologically a very different thing from Neolithic Crete. There is no doubt that Crete and the islands of the Ægean had not reached during their Neolithic period anything like the same state of artistic development that we find in South Russia or Galicia.

[1] Von Stern, p. 66.

[2] *Ibid.* p. 71.

[3] *Ibid.* pp. 53–4. No human habitations have been found.

[4] *Ibid.* pp. 71–2. The offerings placed in the grave are so numerous that it is probable that the feeling that the dead needed them was still a living belief. Besides this, Chwoiko has found near Kief pottery of a similar type often with half-burnt skeletons, and in from 2 to 3 per cent. of the graves with unburnt skeletons.

[5] *Ibid.* p. 68.

[6] *Ibid.* p. 71.

[7] *I.K.* 1904, i. pp. 157–70.

Even if we do not necessarily interpret the absence of the spiral as proof of a more primitive civilisation,[1] we must agree that the designs of the pottery are in every respect of a ruder type. In Crete, as we have seen,[2] the invention of painting on the flat does not come in till Early Minoan I. The absence of metal must, on this hypothesis, have kept Central Europe in the Neolithic Age centuries and centuries after the Ægean had developed the free use of bronze. There is nothing improbable in this supposition.[3] The real difficulty in Dr. Wosinsky's view is that, except for the spiral and the pottery marks that we find in Transylvania,[4] the North would seem to have obtained nothing from the South that was material or portable, but only that most impalpable of things, the artistic spirit. In all its mass of pottery, there is apparently no fragment that is an import from the Ægean.[5] If we can grant that the spiral, once seen, would be reproduced, even when unaccompanied by many specimens of the vases that it decorated, it is strange that knowledge of the potter's wheel did not follow in its train, when the trade route was once opened. The absence of copper and bronze would have to be accounted for on the ground that metal was still so valuable in the Ægean that it could not be spared for export.

Though the difficulties that this view involve are considerable, they are less than those of the rival theory, supported by Dr. Schmidt and Professor von Stern.[6]

[1] See above, p. 52 ; below, p. 196. [2] See p. 47.

[3] See Hoernes, *op. cit.* p. 12, note 1. [4] See pp. 149, 196.

[5] The native character of the pottery is also shown by the discovery at Petrény of lumps of red ochre which was used as colouring matter. Von Stern, p. 87, n. 2. Cp. J. L. Myres on the μίλτος or "red earth" of Cappadocia in *J.A.I.* xxxiii. 1903, p. 394.

[6] And also by Dr. M. Much, *H.I.G.* 1904. Von Stern places the exact point of origin, the centre of the true Indo-Europeans, in South Russia, Schmidt in Hungary and Austria, and Much in Germany. We have no right to smile until we have found Neolithic spirals in Wales—and resisted the temptation !

They believe that the solution of the question is to be found, not in looking to the South, but in looking to the North and the first wanderings of its peoples. Trade routes are now not in question. The date is *ex hypothesi* too early for intercourse, except by the method of migration. South Russia or Central Europe was the home of the original Indo-European race, which unaided, and on its own merits, evolved the spirals of Petrény and Galicia. At the end of the Neolithic Age they moved southward across the Danube and the Balkans into Thrace. There they divided into two streams. One crossed the Hellespont and colonised Troy, the other moved down the coast of the Greek mainland. One or the other crossed into Crete, and created the Minoan culture.

The strong point about this theory is that it professes to equate Neolithic with Neolithic, and Bronze with Bronze. It does not force us to imagine that the Bronze Age began much earlier in the Ægean. On the other hand the resemblances between the two potteries, so far as they exist, are accounted for even less satisfactorily by a theory of migration than by a theory of trade routes. At what exact period could the migration have taken place? If we claim as a proof of it the fact that rude sub-Neolithic vases of the First City of Troy [1] and Melos [2] are like equally rude vases from South Hungary,[3] we must place it very early indeed, before Early Minoan I. In this case, what of the spiral ornament and fine artistic spirit of Petrény? Did the Indo-Europeans forget their beautiful designs for some hundreds of years? There is nothing in Melos or Crete as good as Petrény, from the purely artistic point of view, till Early Minoan III. or Middle Minoan I.

[1] Schmidt in *Z. f. Ethnol.* 1904, fig. 32, p. 655.

[2] *Ibid.* figs. 33–4, pp. 655–6; Edgar in *Phylakopi*, p. 83, and fig. 69, p. 84. They are wide-necked jars with hollow feet and handles for suspension.

[3] From Lengyel, etc. Schmidt, *op. cit.* figs. 30–1, pp. 654–5.

If, however, we lay stress on the resemblance of Petrény to the beginnings of the finer Minoan ware,[1] we must shift our ground, and place the migration late, when the Bronze Age of the Ægean was well advanced. Our Troy, Melos, and Lengyel analogies will have to be explained away. How is it, too, that a people who were, *ex hypothesi*, in a Neolithic state of culture, conquered the bronze weapons of the Ægean? It is against analogy that art should conquer weapons. The one wave of Indo-European conquest that we *are* certain of, was brought about by the iron weapons of an inartistic people. Are we to imagine that the new culture was welcomed without conquest, as England absorbed the industries of the Flemings or the Huguenots? Or does Troy mark the point where our South Russians learnt their war—and forgot for the time their art? It is strange that the half-way houses that mark their progress southward are on a lower level of artistic development than the point from which they started, as well as from the point which they finally reach. They must have left the inartistic members of their population in their settlement all down either coast, and have kept the artists together till they reached Crete!

An ingenious way out of this dilemma is to suppose that the Indo-Europeans invaded the South before their art had reached its full development in its original

[1] See *e.g.* the fine designs of Von Stern, Plate IX. 2 and 3. It is the Middle Minoan II. Kamáres vases that remind Von Stern (p. 86) of Petrény, not the ruder ware. Schmidt, on the other hand, when in *Z. f. Ethnol.* 1904, pp. 653–5, he figures the "Fruit-stand" vase of Knossos as fig. 28 along with figs. 26, 29, from Hungary and fig. 27 from the First City of Troy, does not realise that Kamáres ware is somewhat distinct in date from Neolithic. The vase is figured in *J.H.S.* xxi. fig. 15, p. 88, and classed as Middle Minoan II. by Mackenzie, *ibid.* xxvi. p. 250. At Knossos the type does not appear earlier than Middle Minoan I. See *ibid.* Plate XI. No. 12.

home.[1] The sub-Neolithic vases of Melos were on this view derived from those of Hungary, but the Galician and South Russian spirals were worked by later generations who had remained at home. This is not really a solution of the difficulty. If the South Russians were able in their own home to advance to the art of Petrény before the end of the Neolithic Age, how was it that their kinsmen, whose later history as creators of the Ægean civilisation shows them, *ex hypothesi*, to be the most progressive and artistic part of the race, did not reach the same stage till the Bronze Age was far advanced? In material civilisation they apparently made quick progress. The three-roomed houses of Volo[2] are an advance on the clay huts of South Russia. The settlement at Jortan on the Caicus knew bracelets and knives, arrow and lance heads of bronze.[3] It is uncertain whether even the First City of Troy is purely Neolithic.[4] Yet the pottery of all these places, as well as the beginnings of Early Cycladic and Early Minoan art, is behind that of Petrény. Can Petrény really be earlier? It will, perhaps, be answered that Petrény may have remained Neolithic while its kinsmen were learning the use of metals, so that chronologically it may be equated with Early Minoan III. or Middle Minoan I.; but, if so, the original position that we have no right to equate Bronze with Neolithic is given away, and the whole argument falls to the ground. In particular Dr. Schmidt thus obtains no assistance from the elaborate comparisons he himself previously drew[5] between the spiral ornaments of the Bronze Age of Central Europe and those of the so-

[1] So Schmidt in *Z. f. Ethnol.* 1905, p. 113, which must, I presume, be taken as his matured opinion on the matter.

[2] Tsountas, *C.R.A.C.* p. 207. They had not, however, yet learnt there the use of the potter's wheel (*ibid.* p. 208).

[3] Collignon in *C.R.A.I.* 1901, p. 814.

[4] A. Götze in Dörpfeld's *T.I.* i. p. 325. So Mackenzie, *Phylakopi*, p, 242, note 1.

[5] *Z f. Ethnol.* 1904, pp. 608–34.

called "Treasure of Priam," and other jewellery from the third period of the Second City of Troy. His argument was that the Bronze Age of Central Europe is the earlier, and that *a fortiori* its Neolithic Age is earlier still. If, however, Petrény is thus earlier than the Treasure of Priam, and yet cannot be equated with the First Minoan periods, the only result is to push the date of the Trojan jewellery still later. This may be quite sound, as we shall see shortly, but it does not help Dr. Schmidt's position.

There is a third theory, suggested by Dr. Hoernes,[1] which is much more probable than the second, and on the whole more probable than the first. What we are dealing with may not be due to trade routes or migration, either in one direction or the other, but to the parallel development of various sections of a kindred race. If we merely had the Neolithic finds at Volo to deal with, this would without doubt have been our answer. The Mediterranean race can be just as naturally looked for in Thessaly or Thrace as in Italy or Spain. Is there any reason to think that it did not extend as far north as South Russia and South Central Europe? It is only the same latitude, after all, as Wales and Western Ireland, where the dominant type is similar to what we meet with in Greece or Italy. We may notice, too, that Professor Morris Jones's acute study[2] of the pre-Aryan elements in the Welsh and Irish languages, and the remarkable resemblances he has traced between their syntax and that of Berber and Egyptian, support the evidence of physical characteristics. It was natural that, the farther the race spread from its original home, the weaker it grew, and the less it profited by the advances in material civilisation that were being made by those of its members who had kept in touch with the empires of the East. The pure artistic spirit, however, was in

[1] *Op. cit.* pp. 126–8. He does not develop the idea at any length and is not responsible for the arguments here used.

[2] *Ap.* Rhys and Jones, *W.P.* pp. 617–41; see also *ibid.* pp. 1–35.

the blood of the race, and was independent of material progress. This accounts for the fact that the civilisation of South Russia fell an early victim to its Northern neighbours. It disappears at the end of the Neolithic Age, and leaves no traces behind it.[1] It also explains why its pottery is, in fact, neither the parent nor the child of that of Crete, but shows points of resemblance and difference with more than one stage of Minoan art.[2] It is an independent development, in which an artistic people who were out of the reach of metal spent their whole creative powers.[3] It is possible that it worked

[1] Von Stern, p. 87. As suggested above, this may have been after the Bronze Age had long begun in the Ægean; but it was not necessarily so, if it was an independent development.

[2] The finest spiral designs of Petrény have no analogy so startling as the "late local pottery of the Mycenæan period" in Melos. Cp. Von Stern, Plate IX. 3, with *Phylakopi*, Plate XXVI. 1. The technique, however, is in the latter case quite different, the spiral being in the light yellow ground colour of the clay slip, while the background is painted in in black. See Edgar, *ibid.* p. 132.

[3] Further researches into the Neolithic Age of Asia Minor and Central Asia may throw light on certain aspects of the art of South Russia. As Sayce remarks (*A.C.I.* p. 39), the earlier excavations in Mesopotamia took no notice of pottery. For the Neolithic ware of Susa and Elam, see *ibid.* pp. 47–51. Chantre's account of his discoveries in Cappadocia (*M.C.* 1898) is confused, and it is difficult to estimate how early some of his pottery is. Hall, *O.C.G.* pp. 314–9, makes the same remark about his clay tablets. A valuable paper by J. L. Myres (*J.A.I.* xxxiii. pp. 367–400) on the early pot fabrics of Asia Minor suggests how much we should be indebted to its author were he to revise it in view of the new evidence; *e.g.* in view of the mid-European finds, he could hardly now maintain, as on p. 388, that the spiral is the one feature of the Volo finds that suggests "Ægean tradition." For an account of the Pumpelly expedition and its discovery of a late Neolithic and Early Bronze culture at Asskhabad in Turkestan, see Schmidt in *Z. f. Ethnol.* 1906, pp. 385–90. In the third stratum (Bronze Age) there are three-sided engraved stones, resembling in shape, though not in design, Cretan seal stones of the "XIIth Dynasty Middle Minoan II." type. For these, see above, Chapter V.

out the idea of the spiral independently; the view that all artistic motives must be derived from a common centre is not founded on fact. An eminent authority like Dr. Hoernes believes that the idea of the spiral must be familiar to primitive peoples, before they reach the stage of pottery at all, from the reeds or other vegetable substances of which they make their first baskets. He even believes that in the earliest art rectilinear ornament may be regarded as an advance on curvilinear.[1] In that case curves may have temporarily disappeared from the Ægean scheme of decoration for the very reason that its people had lost sight of organic nature, and had their attention concentrated on conquering the inorganic world with their metal tools.

This theory, too, accounts for the strange pottery marks at Tordos in Transylvania. Such marks, as we have seen,[2] were the common property of the Mediterranean race. It is difficult to see how Dr. Schmidt accounts for their presence on his theory. He cannot maintain that Egypt and Libya obtained their mass of signs from an original centre of diffusion in mid-Europe. I have not noticed any allusion to these Tordos marks in Dr. Schmidt's later writings, although it was he who published them in 1903,[3] before he crystallised his theory.

Whether or no, then, Indo-Europeans entered the Ægean world early in Minoan history, they were not the men who created the mid-European culture. They were rather the men who destroyed it.[4] That they did not come to Crete early enough to vitally affect Minoan civilisation has already been shown. How early they came to the Troad or the mainland of Greece is another matter, on which opinions will differ, according to the weight attached to the various points discussed in the last chapter.

[1] *Op. cit.* pp. 12, note 1, and 125.
[2] Pp. 148–9.
[3] *Z. f. Ethnol.* 1903, pp. 457–8.
[4] Hoernes, *op. cit.* pp. 124–6.

Dr. Dörpfeld believes [1] that they came early, and that we can think of the inhabitants of the mainland during the whole Minoan period as of a Northern "Achæan" stock, with a native geometric style of art. This art he thinks survived uninfluenced in certain places, such as Olympia, but in others was modified by the intrusive oriental art of Crete. Tiryns and Mycenæ were the centre of an Achæan people who had assimilated this oriental Cretan culture. The Pelasgians of Attica were not, as we have been accustomed to think, its original inhabitants, but an invading population, presumably from the East and akin to the "Carian Cretans." [2] We have, in fact, the old theory that "Mycenæan" civilisation was foreign, and imposed from without, cropping up under a new form; the only difference is that Crete has gone over to the foreign side.

There is no need to follow Dr. Dörpfeld in his further theory that Crete itself was finally invaded and conquered by the Cretanised Achæans.[3] In view of Dr. Mackenzie's article [4] this part of Dr. Dörpfeld's theory will doubtless be modified. Its total recantation would not affect the theory as a whole.

The difficulties, however, that are essentially involved in it are serious. It is difficult not to admit, with the anthropologists, that, racially, the Ægean as a whole, mainland as well as islands, originally belonged, and to a large extent still belongs, to the dark Mediterranean race. Valuable as have been the contributions in language, and perhaps in character, of the various intrusive elements, the fact remains that they are intrusive, and have never succeeded in changing the old type. The similarity of pre-Hellenic place names in the islands and on both sides of the Ægean confirms the evidence of racial type. If we once admit that it is improbable

[1] *Ath. Mitt.* xxxi. 1906, pp. 205–18.
[2] *Ibid.* p. 218.
[3] *Ibid.* xxx. 1905, pp. 291–2.
[4] See pp. 78–81.

that Minoan Crete was Indo-European, the termination in -nth, which occurs there as much as on the mainland,[1] can scarcely be Indo-European either. Nor could we account for the survival into Classical times, not in Crete alone, but all over the Greek world, of the essentials of Minoan religion,[2] with its kinship to the pre-Indo-European cult of Asia Minor, had it been an alien influence imposed from Crete. The Renascence of art in Attica and in the Greek colonies on the Asia Minor coast would also be difficult to explain. On the rival hypothesis,[3] those sections of the old Mediterranean race that were least modified by the first tide of Northern invasion found shelter over-seas, among a kindred race, before the pressure of later and fiercer inroads, or were isolated in an uninviting rocky corner of the mainland. This is a luminous and convincing explanation. On Dr. Dörpfeld's theory we should have to imagine that there was a continuous Minoan population all along the Asiatic coast,[4] to which the Renascence was really due, although in Greece itself there was no Minoan

[1] See above, p. 154. This conclusion, it will be noticed, is reached on historical and archæological grounds. On the linguistic evidence alone there is much to be said for the other view. Professor Conway, for instance, suggests to me an attractive derivation of Κόρινθος from κείρω, to cut (cp. κορμός) which is ideal for the Isthmus. Κόρυνθος, a barley-cake, would thus be a "slice" or "bit." This would fit in with the fact that Corinth was insignificant in Minoan times. See Hall, *O.C.G.* 288–9.

[2] Pp. 115, 138. Farnell lays too much stress on eccentricity of tribal migration as an origin of similarity of cult; *e.g.* his Ionians in S. Laconia (*C.G.S.* iv. 42–4).

[3] *E.g.* D. G. Hogarth, *A.A.* pp. 244–5.

[4] Though much of the population of Asia Minor may have been akin to the Minoans, neither tradition nor yet excavation, so far as at present carried out, suggests that any settlements on the coast rose to importance till Late Minoan III. The remains of this period at Miletus (Dawkins in *Y.W.C.S.* 1907, p. 7) are best accounted for by migration from Crete and other places under pressure from the north. See above, p. 143.

blood at all except in Attica. The only other explanation [1] is, that the Achæans had got an alien culture so deep into the blood, that it survived sub-conscious through the Dark Ages of the Dorian conquest, and came to the surface again centuries later. Later analogies are against such an hypothesis. It was not in Romanised Gaul or Spain that the Renascence of the Middle Ages came, but in Italy, the home of the race. Blood is thicker than education.

Even for Attica Dr. Dörpfeld only saves the situation by supposing that its artistic impulse was due to a foreign population, which is at least in complete contradiction to the whole trend of Athenian tradition.[2]

The discrepancies between the civilisation of the mainland and that of Crete, so far as they exist, can be better accounted for by the view already hinted at,[3] that the same Ægean civilisation that reached its maturity in Crete had its growth arrested and modified on the mainland by contact with the North. How early this took place we do not know. The Central Hearth in the Second City of Troy is the earliest phenomenon for which Northern influence can be claimed. It is not improbable, as has been already suggested,[4] that its presence was determined by the climatic conditions of Greece and Troy themselves. Even if this be not so, it need not be dated earlier than the end of Middle Minoan I. An examination of the latest accounts of the stratification of Troy leaves it doubtful whether the third period of the second city, to which this hearth belongs, is nearer in date to the first section of the second city than it is to the fifth city. The first city is clearly an organic unity, and so is the sixth, but the three periods of the continuously inhabited second city may cover a much longer span than the third, fourth, and fifth cities, for

[1] This is the one that Dörpfeld himself seems to prefer. See *Ath. Mitt.* xxx. 1905, p. 293.

[2] Hdt. i. 56–8; Thuc. i. 2. [3] Pp. 178–83. [4] P. 181.

all the depth of deposit that catastrophes have interposed between them. Dr. Schmidt, while he is able to deal with the pottery of the first and the sixth as separate wholes, has to class that of the intervening four cities together.[1] He distinguishes indeed, within this aggregate, three periods of development, but he seems disinclined definitely to associate them with the strata of particular "cities." From first to last Troy was an out-of-the-way corner of Ægean civilisation, and was never in close touch with Crete, its centre point. Even in the sixth city there are no swords,[2] and no frescoes on the walls.[3] The fact, then, that the pottery of earlier "cities" is primitive does not necessarily prove an early date. Dr. Schmidt's own arguments as to the Treasure of Priam, which is placed by him and his colleagues in the same stratum as the Central Hearth, lead, as we have seen,[4] to the same conclusion. In point of fact, he only thinks it necessary to allow 300 to 400 years between this Jewellery and that of the Shaft Graves of Mycenæ.[5] As this is an *a priori* estimate of time necessary for development, and not merely a section of a general scheme of chronology, it is fair to bring it into relation to the Minoan system. When Dr. Schmidt made it, he was himself unconsciously placing the Central Hearth of Troy well within the Middle Minoan periods.[6] If Dr. Dörpfeld were content to accept such a view[7] and bring his Achæans into the Greek

[1] In Dörpfeld's *T.I.* i. pp. 252–83.

[2] A. Götze in *ibid.* p. 325 *seq.*

[3] Dörpfeld in Introduction to Tsountas-Manatt, *M.A.* p. xxxi.

[4] Above, p. 194. For the Treasure, see *S.S.* figs. 34–59, pp. 57–66.

[5] *Z. f. Ethnol.* 1904, p. 613. Cp. Hall's late dating *O.C.G.* pp. 16–7.

[6] Even if the interval between M.M. I. and L.M. III. is considerably less than is suggested in Chapter V.

[7] It is not to be expected that he will. Although in *T.I.* i. p. 31 he places Troy II. 3 not long before 2000 B.C., his late date for the sack of Knossos (see above, Chapter VI.) makes it useless to quote such a date against him. Neither he nor Schmidt mean in fact any such comparatively late influence as is here suggested.

mainland when Minoan civilisation was already far on in its development all over the Ægean world, there would be nothing to object to in his theory. Aryanised Ægeans are quite another thing from Carianised Achæans.

Aryan influence, whenever it came, permeated the Ægean gradually. The fact that the Bronze Culture of Volo is lower from the artistic point of view than that of its Neolithic Settlement, may point to an early intrusion into Thessaly.[1] The invaders may have reached Troy, too, before they reached the Argolid. Although the Central Hearth of the second city need not date from the beginning of the Bronze Age, it is probably earlier than the Palaces of Tiryns and Mycenæ in their present form.[2] By the beginning of Late Minoan I., however, the Central Hearth, whatever its significance, was certainly naturalised at Mycenæ. The scanty remains, too, of the Minoan Script may, as we have seen,[3] imply that the language of the Argolid was by that time no longer the same as that of Crete. On the other hand, we must remember[4] the particular way in which the leaf-shaped sword appears on the slabs above the Shaft Graves. The pure Northerner was in Late Minoan I. and II. still felt to be a foreigner in the mainland kingdoms of the old race.

It is possible, then, and perhaps not improbable, that there was a blend of old and new in the great days of Mycenæ. Does the legend of the Phrygian Pelops gaining the throne of Mycenæ point to some stage in the process? Or, like the building of the Cyclopean walls by men from Lycia, is it only a memory of the connection that existed, throughout the Minoan periods, between the Ægean and the Asia Minor coast? That

[1] Tsountas in *C.R.A.C.* p. 207.

[2] We know little about the early days of Mycenæ and Tiryns. In *Ath. Mitt.* xxx. 1905, p. 151 *seq.* there is an account of some recent excavations which seem to show an earlier Palace at Tiryns with a similar ground plan.

[3] Pp. 149–50.

[4] P. 183.

Northerners had come far south by the end of the Fifteenth Century is a possible inference from the mention of Danaans on the coast of Canaan in the Tell-el-Amarna letters.[1] Is this an echo of the almost contemporary racial movements that are illustrated by the Sack of Knossos, or does a settlement so far south point to something earlier? Or are the Danaans not Northerners at all, but, like the Thuirsha, men of the old race, seeking new homes? Besides the Danaans the letters tell us of Lukki, or Lycians.[2] If we could accept the suggestion that the name Lycian is Greek,[3] we might take this as proving that Greeks were in the Eastern Mediterranean by at least the beginning of Late Minoan III. Their presence there at such a date is on general grounds not improbable, but there is danger in speculating as to a still earlier settlement upon the basis of a doubtful derivation.[4]

We have made but little advance upon the conclusions arrived at in Chapter IX. The shifting of the centre of gravity of the Ægean world at the end of Late Minoan II. remains the first fact in its political history, the first reliable indication of racial change. Behind this we can only balance probabilities and open up lines of inquiry.

[1] Danuna, clearly the Danauna or Danaàu of 200 years later. See above, pp. 123–4, and Hall, *B.S.A.* viii. pp. 176–9, 182–4. Cp. Petrie, *Hist.* ii. pp. 264–319 with *ibid.* iii. pp. 150–1.

[2] Hall, *op. cit.*; Petrie, *Hist.* ii. p. 278.

[3] From Apollo Λύκειος. So Kretschmer, *E.G.S.* pp. 370–1. Farnell (*C.G.S.* iv. 1907, pp. 118–23) elaborates it. He has apparently missed the Tell-el-Amarna reference.

[4] We can scarcely dissociate Lycia from Lycaonia (Fick, *V.O.* p. 2). In any case the derivation proves nothing (*pace* Farnell, p. 123) as to Greek elements in Crete. Neither the word Lycian nor the worship of Apollo Λύκειος are connected with it. The very tradition that takes the Cretan Sarpedon to Lycia (Hdt. i. 173; see above, p. 143) adds that the name was not introduced by him, but later, from the mainland.

CHAPTER XII

CRETE AND THE HOMERIC POEMS

It has doubtless already been noticed that the various tribal names that generally loom so large in these discussions have been practically not mentioned at all in the present book. It is not an accident. It is no disparagement of the interesting work done by scholars who specialise on "Pelasgians" and "Achæans" to maintain that what we need at the present moment is to clear the air of them. There is a danger that facts are being obscured by names.[1]

Professor Ridgeway [2] has done a service in emphasising the fact that the Greeks, as we know them, came of a mixed race, and that the word Pelasgian, which they themselves used of one of the early elements in its composition, must be connected with at least some phase of "Mycenæan" civilisation. When, however, he equates Pelasgian with that civilisation as a whole, he is going beyond the evidence ; [3] and scholars who follow him must be puzzled by Dr. Mackenzie's application of the word to the mainland type of Mycenæan civilisation that invaded Crete at the end of Late Minoan II.,[4] or Dr. Dörpfeld's application of it to the Carian Cretans who invaded Attica.[5] Achæan, too, is a catch-word whose use

[1] J. L. Myres makes the same point in *Y.W.C.S.* 1907, p. 18.

[2] *E.A.G.* i. *passim.*

[3] This view, maintained by H. R. Hall in *O.C.G.* 1901, pp. 79–86, still holds good.

[4] *B.S.A.* xi. p. 222. This is also practically the view of P. Kropp, *M.M.K.* 1905, pp. 36–9.

[5] *Ath. Mitt.* xxxi. 1906, p. 218.

does not bring with it identity of view. For Dr. Dörpfeld, it means the original Indo-European inhabitants of the mainland [1] who invaded Crete when Dr. Mackenzie thinks the Pelasgians did. For Dr. Mackenzie they are the first wave of the true Greeks,[2] for Professor Ridgeway a Celtic tribe that introduced labialism, iron, and cremation among the Greek-speaking Pelasgians.

The time is not yet ripe to equate with the different stages of early Ægean civilisation the various tribal names that are preserved to us in Classical Greek tradition. There is doubtless a kernel of historical truth in most of the old Greek legends, but their very complexity prevents us from resting content with any such simple theory as that which gives us Pelasgian *plus* Achæan *plus* Dorian as an adequate account of the race history of the Ægean. If we insist on identifying Pelasgians and Achæans, we must not ignore Leleges and Minyans,[3] nor yet the Teucrians and the Danaans, whom we find on Egyptian monuments of the XIXth Dynasty,[4] as well as in the Homeric poems. The Thuirsha, too, who trouble Egypt along with the Akaiuasha or Achæans, are an unknown quantity, whose name, as we have seen,[5] cannot be lightly dissociated from the Tursenoi or Tyrrhenians, whom Greek tradition connects with Lemnos.

If we turn again to the genealogies of individual Greek families, we shall find the same complexity. Minos is, after all, as much Dorian [6] as he is Phœnician, and as much Phœnician as he is Pelasgian; Danaus and the Perseids are only Pelasgian in the same sense that Ægyp-

[1] *Ath. Mitt.* xxxi. pp. 205–18. [2] *B.S.A.* xi. p. 222.

[3] Fick, *V.O.* pp. 107–18, and Farnell, *C.G.S.* iv. 23–46, deal with them, but rashly. Hall, *O.G.G.* pp. 99, 100, is more cautious.

[4] See pp. 123–4, 160, 202. [5] Pp. 123–6.

[6] On this difficult aspect of the Minos tradition, see *J.H.S.* xiv. pp. 356–8. Whether Mr. Evans would still maintain the views there expressed is open to question.

tus is; Agamemnon and the Pelopidæ are not Achæan at all.

One of the most fruitful fields of inquiry that has been undertaken on these fields within the last few years is Dr. Richard Meister's investigation into the Dorian inscriptions.[1] He takes as a test of true Doric certain characteristics that are common to the inscriptions of Sparta and the caricature of the Spartan dialect that is contained in the *Lysistrata* of Aristophanes. By this method he finds that, outside of Sparta, it only existed at Argos, Mycenæ, and Knossos and Gortyna in Central Crete. In Laconia, in all the Argolid except these particular cities, and in the east and west of Crete, these "true Doric" characteristics are not found, and the inscriptions diverge less markedly from those of other Greek dialects. It was only in certain centres, Dr. Meister concludes, that the Dorians were strong enough to impose their dialect without modification upon the races they had conquered. Elsewhere we have the old Achæan tongue, with only a veneer of Dorism. What that veneer precisely consists in, and what is the character of the dialect that underlies it, is another matter, and Dr. Meister has not as yet dealt with it. He has already opened up what promises to be an important field of research. Will it some day give us the data for determining the character of the Greek dialects in the period or periods when the Homeric poems were composed?[2]

[1] *S.G.W.* xxiv. pt. 3, 1904. His five "shibboleths," as he calls them (p. 97), are (*a*) h for σ between vowels, *e.g.* μῶha for μοῦσα; (*b*) σ for θ, *e.g.* ἀνέσηκε for ἀνέθηκε; (*c*) δδ or δ for ς, *e.g.* Δεύς for Ζεύς; (*d*) β for ϝ before vowels, *e.g.* βοικέτας for (ϝ)οικέτης; (*e*) ι for ε before α or ο preceded by an original σ or j, *e.g.* Θιός or (see *b*) σιός for Θεός (originally Θϝεσός). For Laconia (pp. 8–51) the evidence is convincing on all five points, but it should be noticed that for Argos and Mycenæ (pp. 51–61) there is no evidence for (*b*) and (*c*), while in Central Crete (pp. 61–95) (*a*) does not occur.

[2] In the forthcoming second volume of his *E.A.G.* Ridgeway will develop the view that the Dorians were an Illyrian people,

With the Homeric Problem the present work does not propose to deal, save in so far as direct light has been thrown on it by the Cretan discoveries. It is unnecessary, for instance, to go into the question of the Homeric House.[1] The only conclusion we can draw from the Cretan remains is that several types of house existed in the Eastern Mediterranean side by side. We may not even yet have discovered that which approximates most closely to the Homeric House. It has certainly no special connection with what we have found in Crete.

The most important contribution that Crete has made to the Homeric Problem is that it has emphasised for us the greatness of the art whose memories are preserved in the *Iliad* and the *Odyssey*. The Palace of Alkinoos, the Shield of Achilles, were no mere imaginings of the Early Iron Age, its—

> Masts of the beaten gold
> And sails of taffetie.[2]

We need not of course assume that the picture of life preserved to us in the Homeric description was ever worked by a Cretan artist on an actual shield.[3] That weapons of war were not grudged splendid decorative designs is shown by the dagger-blades at Mycenæ,[4] and the Lion and Goat on the gold-plated sword from the Chieftain's grave at Zafer Papoura.[5] It is probable,

if we may judge from a short account of a recent lecture (*Camb. Rev.* March 14, 1907). It will be interesting to see how this will be related to Conway's view that the Eteo-Cretans were akin to the Illyrians.

[1] For the literature see J. L. Myres, *J.H.S.* xx. pp. 128–50; E. Gardner, *ibid.* xxi. pp. 293–305; G. Dickins, *ibid.* xxiii. 325–34; Noack, *H.P.* 1903, pp. 39–73; A. Lang, *H.A.* 1906, pp. 209–28.

[2] *Ap.* Lang, *H.A.* p. 193.

[3] See my Review of Lang *H.A.* in *C.R.* xxi. 1907, p. 22, and his reply in *ibid.* pp. 50–1.

[4] See p. 136.

[5] See p. 88.

however, that in the great Minoan periods metal was not largely used for shields. How early they were strengthened with bronze plates we do not know ; but it is possible that even before that time the description was taken over from another object, or another material. The "five folds" of Achilles's shield [1] show that the first poet did not conceive it as altogether of metal. The still later stage when the shield was all of metal [2] and the greaves of tin [3] need not here detain us. In the Porcelain Plaques that decorated a chest of cypress wood [4] we have at least got just such a picture of life as is given us in the eighteenth Iliad. We may take it that, whether or no such an elaborate scene was ever worked out on metal, or on a weapon of war, the original poet is proved to have been inspired by an actual work of art. The Palaces of Knossos and Phæstos, with their splendid art and their triumphs of mechanical science, are in a similar way the direct prototype of the Palace and the Gardens of Alkinoos,[5] and the golden automata of the smithy of Hephæstus.[6]

We need not discuss the interesting suggestions of

[1] *Il.* xviii. 481. See, too, above, p. 38.

[2] In *ibid.* 468–80, it is clear that the making of the shield is regarded as entirely metal working. 481 is a survival, not understood.

[3] *Ibid.* 613. There were cuirasses of some sort in Minoan times, as they appear on the Clay Tablets. See Evans, *Cor. Num.* 1906, p. 357. They are not, however, represented on Minoan art as worn by warriors. For ritual "copes" of stiff texture, which some archæologists consider cuirasses, see p. 37. In Cyprus, however, the cuirass and also the round shield appear in art which is not later than the beginning of Late Minoan III. Evans (*J.A.I.* 1900, p. 213, and fig. 5, p. 209) considers that they came into the Ægean from the south-east.

[4] See p. 20.

[5] *Od.* vii. 83–132. General phrases of a similar type are used of the Palace of Menelaos at Sparta in iv. 42–8, but there is no detail.

[6] *Il.* xviii. 410–21.

Dr. Drerup [1] that the origin of the *Odyssey* is to be sought for in Crete; but it can be at once granted that attention has been unduly concentrated on Ithaca, Leukas, and Corcyra, while the numerous references in the *Odyssey* to the topography of Crete [2] have been neglected. We must not press too hard the alleged Southern character of the flora of the poem—its laurel, cypress, palm, and lotus, and the cultivation of the fig and olive.[3] The Phæacians, however, themselves, mariners, artists, feasters, dancers, are surely the Minoans of Crete.[4] In one passage in the Seventh Book,[5] as Dr. Drerup suggests,[6] the secret is out. Alkinoos is telling Odysseus that the Phæacians will take him home, even if it be farther than Eubœa, the farthest place in the world, where they once took Rhadamanthus. It is a bad comparison if the point of view, as is ordinarily held, is that of Corcyra, a good one if it is that of Crete. And was not Rhada-

[1] *Homer*, 1903, pp. 130–5. Fick. *V.O.* p. 7, makes a similar suggestion for his "Tisis," or second part of the *Odyssey*, but the seventh-century date to which he still assigns it makes his views irrelevant to the present argument.

[2] iii. 291–300, xix. 172–9, 188–9, 200, 338.

[3] ix. 183, iii. 64, vi. 163, ix. 93, vii. 116, xxiv. 246.

[4] vi. 266, 270, vii. 34, 86–102, viii. 247–50, 370–80; cp. xiv. 224, for Cretan love of the sea. It may be noticed in passing that viii. 246, which denies the Phæacians boxing, is on this theory an unfortunate line in view of pp. 34–5.

[5] 321–4.

[6] *Op. cit.* pp. 135, 145; I had myself independently drawn the same inference from this passage, but Drerup anticipated me. I may add that this very passage, with its miraculous journey to Ithaca and back in a single day, might, when misunderstood, have done something to create the belief in classical Corcyra that it was Phæacia (Thuc. i. 26, iii. 70). There may, too, have been genuine Minoan traditions in the island to help this out. As we have seen (p. 13), there was a Minoa there. Is *Od.* vi. 4–8, with its original home of the Phæacians "in Hypereia, near the Cyclopes," a dim memory of the links that connected Crete and Sicily? See pp. 12–3, 42, 115.

manthus Minos's own twin brother? What was he doing in Corcyra?

Such descriptions as the Palace of Alkinoos and the Shield of Achilles take us back, behind even the earliest phases of transition, to Late Minoan I. and II. Whether or no their glories were put into verse by the Minoans themselves we cannot tell. We may be sure at least that the first Greek poems they inspired were sung by men who had heard of them as living realities, even if they had not themselves seen them; men who had walked the palaces perhaps, if not as their masters, at least as mercenaries or freebooters.

These memories of Late Minoan I. and II. do not form a considerable part of the Homeric poems. Their story, as a whole, and the main texture of the civilisation that it presupposes, refer to Late Minoan III. The singers of the first Greek ballads upon which the *Iliad* and the *Odyssey* are based, present to us the sea power of Agamemnon as existing in this transitional period, at the close of the Bronze Age. Whether or no they were themselves of the same race or language as the men whose deeds they were singing we have no evidence.

Late Minoan III. is a long period, and marks the successive stages of a gradually decaying culture. In its later phases, as we have already seen,[1] the Bronze Age shades off into the Iron, and the tombs of Eastern Crete show us strange in-and-out combinations characteristic of the transition. The inference we draw from these combinations, as well as from the cremation graves of Salamis,[2] will probably largely depend on our general theory as to the origin and composition of the Homeric poems. Those who, like Professor Ridgeway,[3] Mr. Andrew Lang,[4]

[1] See pp. 100–2.

[2] Tsountas-Manatt, *M.A.* p. 388; Poulsen, *Dip.* 1905, p. 2; Ridgeway, *E.A.G.* i. p. 32.

[3] *E.A.G.* i. pp. 631–6.

[4] *H.A.* 1906.

or Mr. T. W. Allen,[1] believe that the poems are the work of a single poet creating them once for all at a given moment of culture, will probably claim them in their support. It may be granted that they make it conceivable that a given poet living at the close of the Bronze Age may have had the exact archæological equations that are demanded by the Homeric "moment of culture" presented to him as the sum total of his individual experience.

Support may further be drawn by those who believe in the unity of the poems from the interesting views on cremation lately put forward by Dr. Dörpfeld.[2] He sees that the view that the Achæans invariably burned their dead, although it is the obvious deduction from the Homeric poems, raises serious difficulties. It not only distinguishes them more sharply than we should expect from the earlier inhabitants of the Ægean, who, whether in Crete or Mycenæ or elsewhere, seem to have always buried their dead, but it seems to conflict with the evidence of Classical Greece. In a necropolis at Samos, for instance, belonging to the sixth century B.C., 159 burial graves have been discovered, and only two in which the bodies were cremated.[3] In Sicily, too, at Syracuse and Megara Hyblæa, the figures are 686 to 119.[4] Dr. Dörpfeld's suggestion is that from first to last the practice was really the same, and that the supposed change is only one of degree, due to the peculiar conditions of distant wars. The dead, he thinks, were always buried, in Minoan, Homeric, and Classical times, but for hygienic reasons their bodies were either embalmed or "scorched"[5] before burial.

[1] *C.R.* xix. 359, xx. pp. 267–71, xxi. pp. 16–9.

[2] *M.N.* pp. 95 *seq.* See also a summary in *C.R.A.C.* pp. 161–5.

[3] Poulsen, *Dip.* 1905, p. 4. [4] *Ibid.*

[5] The embalming would only be for the rich. So Helbig *ap.* Frazer, *Pausanias*, iii. pp. 106–7. Dörpfeld translates by "dörren"

The scorching might, in some cases, go as far as complete burning,[1] but this would seldom be the case unless a man died abroad, and wished to be buried at home. Even then the important thing was the collecting of the bones after burning, and the burying of them at home, as is shown by Homer's account of the funeral rites of Patroklos.[2]

There is no doubt that this theory accounts in an ingenious and attractive way for a situation that is admittedly difficult. The objection is that at present there is practically no direct evidence to support it. If it is true, there ought to be traces of "scorching" in every burial interment of Minoan and Classical times. Yet in many hundreds of such graves that have been opened, there is nothing of the kind. Some traces of partial burning noticed by Dr. Orsi and Professor von Stern,[3] and some charred fragments found in tombs at Mycenæ, do not carry us far. The latter are partly due to sacrifices,[4] partly to charcoal brought in to comfort and warm the dead. Clay chafing-pans filled with charcoal are actually found in several of the Zafer Papoura graves. In one of them, and also in the Royal Tomb at Isopata,

(dry or scorch) the *ταρχύειν* of *Il.* vii. 85. In Hdt. ix. 120, the hero Protesilaos is a *τάριχος*, a cured or dried object, like a salt fish.

[1] For this Dörpfeld thinks the specific word would not be *καίειν* but *κατακαίειν*. Thus he explains *Phædo*, 115E, *ἢ καιόμενον, ἢ κατορυττόμενον*, not as two alternatives (= aut . . . aut . . .) but as two stages in one process (= sive . . . sive), Socrates did not wish Crito to see his body either in the preliminary stage of being scorched or in the concluding stage of being buried. The *ἐρωτᾷ δὴ πῶς με θάπτῃ* of the immediately preceding 115C is against the ingenious hypothesis. Socrates has without doubt got into his head at the moment alternative methods of burial.

[2] *Il.* xxiii. 239–40, 251–4.

[3] Quoted by Dörpfeld, *op. cit.* It should be noticed, however, that Von Stern does not himself agree with Dörpfeld's theory. See *P.K.S.R.* 1905, p. 71, note.

[4] *S.S.* p. 158; Frazer, *Pausanias*, iii. p. 107.

the charcoal is in a plaster tripod that forms a regular portable hearth.[1] We must leave to the chemists the verification of Dr. Dörpfeld's further suggestion that it is his scorching that accounts for the "sitting-up" or "hunched-up" posture of the skeletons in many Ægean and Central European graves.[2]

If Dr. Dörpfeld's theory is correct, we have to suppose that the idea of such a thing has been so remote from the consciousness of most archæologists that they have failed to notice its existence. In these days of scientific method and careful observation this is an improbable hypothesis.[3] The old theory still holds the field in spite of the in-and-out corkscrew development that it presupposes. That the Northern custom bulked more largely in the Ægean in the first days of conquest than in the Classical period, when the old blood had had time to reassert itself, is after all only natural. It is possible, too, that in the days of migration and distant forays the convenience of cremation would spread it among people for whom it was not a racial tradition. We can accept this part of Dr. Dörpfeld's theory[4] without the rest. It has already been noticed[5] that in the Tomb at Muliana we may have an actual case of cremation succeeding burial in the same race, and possibly in the same family. It has been suggested, indeed, that race has little to do with the matter. Dr. Poulsen believes[6] that the practice of cremation can start among any early people as a happy thought. When the flesh goes, the

[1] *P.T.* pp. 28, 36, 51, 85, 87, 143, and Plate LXXXIX. and fig. 46, p. 49.

[2] What the Germans call "Hockergräber."

[3] See Evans's remarks in *C.R.A.C.* p. 166. So Halbherr, writing I imagine with Dörpfeld's theory in view, says that in the Hagia Triada Tholos there are no traces of "even partial cremation" (*M.I.L.* vol. xxi. 5, 1905, p. 252).

[4] Which indeed is not new. See *e.g.* G. G. A. Murray, *A.G.L.* 1897, p. 31.

[5] Above, pp. 101–2.

[6] *Dip.* 1905, pp. 5–9, etc.

ghost of one's unpleasant ancestor goes with it. So Mr. Evans [1] gives instances of such belief in vampires temporarily spreading cremation in mediæval and modern times. These arguments, however, cannot be pressed too hard. Neither vampirism nor migration can be considered as more than a secondary cause of the spread of cremation in the Ægean. The Homeric practice is too uniform, and it can scarcely be chance that the change is in fact coincident with the intrusion of a new race from a quarter where cremation was common.[2]

Cremation then must still be equated by the partisans of Unity with the given "moment of culture." How far such a view is probable on general grounds we cannot here discuss. It must be pointed out, however, that the evidence of the East Cretan tombs, so far as it goes, does not in fact point in this direction. There are no exact equations, but rather in-and-out combinations of the most diverse sorts. What they really suggest is that the overlapping here and there, in actual fact, of the old stages of culture with the new, prevented the younger generation of poets from seeing any difficulty in the epithets and descriptions that they inherited from their predecessors. East Crete may be an excellent argument against any mechanical theory of stratification, that rejects as spurious all that does not tally with the bloom of Mycenæ, or against late dating that assigns a considerable portion of the poem to days when even decadent Mycenæ was a thing of the past. They have no sting for those of us who believe that all but the fringe of the story of our poems was expressed in Greek hexameters before the end of the transitional Early Iron Age, and yet think several great poets more probable than one great poet,[3] and evolution more probable than creation

[1] *C.R.A.C.* p. 166.

[2] See Ridgeway's valuable chapter in *E.A.G.* i. pp. 481–551.

[3] Mr. Lang (*H.A.* and *C.R.* xxi. p. 51) thinks it an argument in favour of Unity that the poets, except Coleridge, are on his

by a single act. Such a position may be illustrated, though of course it cannot be proved, by two examples.[1]

The first is suggested by the East Cretan tombs. There clearly was a period of transition when bronze and iron weapons were both in use in the same locality. Are the descriptions in the Homeric poems of swords and spears satisfactorily accounted for on the theory that they were originally written at this given moment of culture? The character of our answer can be anticipated when it is realised that of the three chief living defenders of the unity of the poems, two believe that the Homeric swords and spears were all of bronze,[2] and the other that they were all of iron.[3] The fact is that on the unity theory either of these views is possible; the

side, and that they carry weight "in a matter of their own business." That the poetic temperament makes an unsound judge of such matter is shown by some delightfully naïf remarks made by Sir Alfred Austin, the present Poet Laureate, on the relation of Shakespeare to his sources (*Times*, September, 23, 1904, quoted by R. H. Carr, *Plutarch's Lives of Coriolanus*, etc.: Clar. Press. 1906, Introd. p. xviii). In ignorance as to the undoubted facts as to the way Shakespeare used North's translation of Plutarch for his Roman plays (see my remarks *C.R.* xxi. p. 22), Sir Alfred writes: "Though Shakespeare may have taken his plots and the names of his personages from wherever he happened to find them, he could by no possibility have borrowed prose passages from any one, and made poetry of them by turning them into verse. Poetry is not made in that fashion. The white heat, the fine frenzy of the brain in the moment of such composition, precludes so cold a procedure. . . . To suppose that the poet deliberately takes his material, his subject-matter, from others, and then transforms it into poetry by the aid of what Prospero calls his 'so potent art,' is to commit the mistake so often made by critics with an insufficient amount of imagination." Comment is needless!

[1] For a fuller exposition of a similar point of view, see P. Cauer, *G.H.* 1895, and G. G. A. Murray's brilliant chapter in *A.G.L.* 1897, pp. 8–43. See also H. Browne, *H.S.* 1905; and my remarks in *C.R.* xiv. p. 461, xxi. pp. 19–23.

[2] A. Lang, *H.A.* pp. 176–208; T. W. Allen, *C.R.* xxi. p. 19

[3] Ridgeway, *E.A.G.* i. pp. 294, 303–7.

one view that is impossible is just that which, *ex hypothesi*, ought to be suggested by the East Cretan tombs, namely that they were sometimes of the one material and sometimes of the other. In the poems they are invariably called bronze, except in one single phrase ; but the phrase is of so peculiar a character that it vitiates any conclusion that can be drawn from the numberless examples that can be ranged against it. In two different books of the *Odyssey*, though in reference to the same incident, the reason given for putting swords and spears out of the way is the proverb that " Iron does of itself attract a man." [1] Yet the very weapons that are referred to are themselves later on called bronze.[2] That iron was already so closely associated with fighting that the fact had got crystallised into a proverb is indeed staggering for the supporters of unity. There is little wonder that Professor Ridgeway is so impressed by the fact that he takes it as the one test case,[3] and concludes that bronze was used in all other cases as a mere linguistic survival from an earlier stage. Mr. Lang, on the other hand, would like to believe that the phrase is a piece of " gag " of much later date than the *Odyssey* in general ; he sees that if it was written by " Homer," it once and for all disposes of his theory that swords and spears were always, or even usually, of bronze.[4] Neither Professor Ridgeway nor Mr. Lang, it may be noticed, is able to make the slightest use of the combinations suggested by the East Cretan graves.

[1] *Od.* xvi. 294, xix. 13 : ἀντὸς γὰρ ἐφέλκεται ἄνδρα σίδηρος.

[2] *Ibid.* xxii. 125. [3] *E.A.G.* i. p. 294.

[4] In *C.R.* xxi. p. 21, I said that Mr. Lang " takes shelter in the ranks of the Athetisers and rejects the two lines 'as a very late addition.'" Mr. Lang (*ibid.* p. 50) objects to this statement of his views, and explains that he did not reject the lines, but only said that, if they were genuine, they destroyed his theory. As he does not abandon his theory, this seems to me to be the same thing ! None the less, if Mr. Lang considers the term " Athetiser " to be " opprobrious," I gladly withdraw it !

On the evolution theory, on the other hand, these graves are a real help. It is unlikely that weapons would be invariably called bronze in a transitional age, when iron was becoming common. The use is too uniform for Professor Ridgeway's explanation to hold good. His analogy of the use of Chalkeus and Chalkeion for blacksmith and smithy in later Greek [1] is not a sound one. They are used as fixed names, just as we talk of an "ironmonger." We do not, all the same, talk of buying "iron" kettles when we mean copper ones; nor would the Greeks have talked of the objects made by the Chalkeus as bronze, unless they were so in point of fact. An epithet is different from what is practically a proper name. The real analogy is the occasional use of Chalkos for a sword or spear in later poetry. We agree that such a survival is natural; but if it has no basis in actual life, it is bound to be sporadic, and not universal. It is impossible to believe that in every passage except one a poet would have always talked of bronze when in point of fact he meant iron. On the other hand, if the word "bronze" was once used in a great mass of poetry at a time when it represented the actual facts, it was possible for the younger generation of poets not only to leave unaltered what they had inherited, but to create the new on the model of the old. Until the discovery, however, of the East Cretan tombs, there was always the difficulty in this view that it seemed to demand, what was out of the question at so early an age,[2] something like conscious archaising; Professor Ridgeway's principle of linguistic survival would account for much, but it would hardly account for the younger poets' almost complete success in running on the old lines. If, however, these later poets wrote in days when iron weapons had not yet completely supplanted bronze, they would see nothing odd in their predecessors' lan-

[1] *E.A.G.* i. p. 295.

[2] As is well shown by Lang, *H.A.* passim.

guage; and they would associate with it, without any feeling of incongruity, the proverb that had already grown round the dominant use of their own day.

Our second example will be linguistic, and not archæological, and our reason for introducing it is that in dealing with the Homeric question it is vital that both lines of argument should be considered side by side, and allowed their cumulative weight. While explaining to Odysseus the genealogy of the royal house of Phæacia, Athene states that the king and queen, Alkinoos and Arete, are "descended from the same ancestors;" [1] they are, in fact, uncle and niece.[2] Nausithoos had two sons, Rhexenor and Alkinoos. Rhexenor died "without leaving a male child," [3] and his daughter Arete became the wife of her uncle Alkinoos. Such is the meaning of the genealogy as it stands, but it is only extracted from it at the expense of two flagrant violations of the ordinary usages of the Greek language. "Descended from the same ancestors" is not the legitimate meaning of the Greek words, but "born of the same parents," and Rhexenor, on any ordinary principle of interpretation, died "without a child," and not "without a male child." [4] In the version for which these two lines were originally written, Arete and Alkinoos were clearly brother and sister, and Rhexenor was the brother of both. Expressions that were really applicable only to a grosser version have been taken over into one that is more refined, and are strained to bear a new interpretation. It is significant that we have a tradition preserved to us in Hesiod,[5] that the king and queen were, in fact, brother and sister.

[1] *Od.* vii. 54: ἐκ δὲ τοκήων τῶν αὐτῶν.

[2] Murray, *A.G.L.* p. 40, says by mistake first cousins.

[3] vii. 64: τὸν μὲν ἄκουρον ἔοντα.

[4] ἄκουρον would naturally be without a κούρη as well as without a κοῦρος.

[5] *Ap.* Schol. *ad loc.* It was probably from the Catalogue of Women, the so-called Eoiai (ἢ οἷαι).

What is the attitude to this passage of those who believe that in the *Iliad* and the *Odyssey* we have the product of a single act of creation? In no single other passage in Greek does the common word τοκεύς mean ancestor, as opposed and contrasted to parent. That in some passages ancestor is synonymous with parent is, of course, no argument at all. How do they get over the fact? Are we to imagine the eccentricity of a "moment of culture" or an intrusive bit of "gag"? [1]

It is more important to notice the way in which the higher criticism deals with the difficulty, so far as it has realised it.[2] Kirchhoff [3] retains in their natural sense the two lines in which it is said that Arete is born "of the same parents" as Alkinoos, but expunges all the rest of the passage as a late addition. He is obliged in consequence to expunge a later line of the same book [4] where Arete is said to be the daughter of Rhexenor. Fick [5] follows Kirchhoff in regard to the first passage, but re-writes the later line, so that it reads that Arete is "the wife of great-hearted Alkinoos." Van Leeuwen [6] suggests a more ingenious emendation of the last line, by which Rhexenor becomes no longer a man, but an epithet, and Arete is "the wife of Alkinoos the breaker of men"! He notices, too, what neither of his predecessors have done, that on purely linguistic grounds the one phrase which there might be some reason to consider late is the use of the pronouns in "the same" or "those very" parents. Yet this occurs in the only two lines that Kirchhoff and Fick retain as part of the original poem!

The real fact is that all this athetising and emendation

[1] See T. W. Allen, *C.R.* xxi. p. 17.

[2] So far as I am aware, the point about ἄκουρος has not been noticed.

[3] *H.O.* pp. 79, 320. [4] l. 146.

[5] *H.O.U.S.* pp. 58–9.

[6] *H.O.C.* pp. 149, 155. Ἀρήτη, ἄλοχος ῥηξήνορος Ἀλκινόοιο for the MSS. Ἀρήτη, θύγατερ Ῥηξήνορος ἀντιθέοιο.

is unsound. The passage as a whole is bound up indissolubly in the texture of the poem. None the less nothing is more certain than that it represents the combination of two competing versions, both written in hexameters. Let us remember that it was no partisan of unity, but Wolf himself, the first higher critic of Homer since the Alexandrians, who said:[1] "Perhaps it will never be possible to show, even with probability, the precise points at which new filaments or dependencies of the texture begin." The fact that it is impossible to decompose is what we should expect; it does not render a whit less probable the theory of evolution.

[1] Præfatio in *Il.* 1794, p. xxviii.

APPENDIX A (to p. 70)

THE EGYPTIAN YEAR

THE beginning of all the trouble is that the Egyptians used a calendar year of only 365 days, and ignored leap year. Their New Year's Day, the first day of the month Thoth, originally began in the summer. It was the time of the greatest event of the year, the inundation of the Nile, and was naturally taken as the beginning of all things.

The beginning of the inundation, however, was not the only event that marked the New Year. The actual day was fixed by the rising of Sothis or Sirius, the bright star of the constellation Canis Major, which looms so large in all Classical literature. By the "rising" of the star was meant, as always in ancient times, not the first day of the year on which it was seen at night, but the first day on which it was seen emerging on the eastern horizon, in the faint light that immediately precedes sunrise.

Though, however, the first of Thoth fell here originally in the year from which the Egyptians began their counting, as we count from A.D. or B.C., the Romans from the foundation of the city, the Greeks from the first Olympiad, it lost a quarter of a day every year owing to its inability to "leap," and got this much away from its starting-point. In four years it fell a day earlier, in one hundred years nearly a month earlier, in the true solar seasonal year, and was already far away from the rising of Sirius. In 730 years it had retired into midwinter, and was completely out of touch with the inundation of the Nile.

In 1460 full solar years—that is, in 1461 of its own reckoning—it had gone back a complete cycle, and coincided once more with the rising of Sirius.

The "first of Thoth," then, of any given year tells us little by itself. What sort of "first of Thoth" was it? One that fell in our November, or our April? The only hope of identifying it is to find out in what year the calendar is supposed to begin, and to calculate from that basis. Here fortunately we have information. Censorinus, a Latin writer of the third century A.D., among the curiosities of the calendar that he dedicated to his patron Cerellius on his birthday,[1] gives us the theory of the Egyptian year, and bases his calculations on the day of the Roman calendar on which the first of Thoth fell in the consul-dated year in which he is himself writing. By his help we can establish the beginning of the Egyptian cycle. To take Meyer's dates, for simplicity, we see that by A.D. 140 the Calendar had come round full circle, and New Year's Day coincided once more with the rising of Sirius. Similar cycles had therefore begun at intervals of 1460 years before A.D. 140—that is, at 1321 B.C., 2781 B.C., 4241 B.C. Meyer makes the latter date the beginning of the Calendar, the first fixed date in history. In that year, he calculates,[2] Sirius rose on the 15th of June of the true seasonal Gregorian year. Its rising must have thus exactly coincided with the traditional beginning of the inundation. The Festival of "The Night of the Drop," is at the present time observed in Egypt on the 17th of June.[3] As will be seen later, the Sothic year is practically equivalent to the Julian year, but longer than the Gregorian. In the immediately earlier or later cycles, therefore, Sirius rose at the beginning or the end of the

[1] *De die natali liber* (ed. Cholodniak, 1889), chap. xxi. 6 and 10, and xviii. 10.

[2] *A.P.A.* 1904, p. 43.

[3] Budge, *The Nile* (Cook, 1901), p. 91; Baedeker's *Egypt* (Eng. ed. 1902), p. lxxvii; Murray's *Egypt* (1900), p. 39.

true seasonal June, and not in the middle of it. At such periods, Meyer argues, the idea of fixing the Calendar by its rising would never have occurred to people, as it did not coincide with the beginning of the inundation.

So far, so good; but can we go further? Granting that a document tells us that a certain event happened on the first of Thoth of the first year of Senusert III. or Amenhotep I., have we any clue to follow? It is here that the very imperfections of the Egyptian calendar come unexpectedly to our aid. If we knew that something happened on the first of August of the first year of Edward I. of England or Philippe III. of France, it would not give us much additional information to hear that it was a summer day. But in Egypt the first of Thoth can only be a summer day on a comparatively small number of the 1460 years through which it revolves in its cycle. Such double dating by the general season of the year has already been used in this connection. There is in particular a picturesque document in which Harurre, a royal envoy of XIIth Dynasty days,[1] tells us that it was in the seventh and ninth months that he went to work at the turquoise mines at Sinai, and survived "the evil summer season," when "the mountains brand the skin."

Sometimes, however, we can get nearer to the true date still. If we are told that Sothis rose on a given day of a given month of a given calendar year, we can fix the exact point of the Sothic cycle that the calendar year has reached. If we heard, for instance, that in a given calendar year Sothis rose on the first of Thoth, the year meant would be either 1321 or 2781 or one or

[1] Breasted, *A.R.* vol. i. p. 321, No. 735, says that this is "unquestionably Middle Kingdom, and may provisionally be placed in the reign of Amenemhat III." Has Petrie, *Sinai*, p. 170, fresh evidence when he assigns it without doubt to that reign, and, indeed, treats it as one of the corroborative proofs of the correctness of the Berlin Sothic arguments?

other of the original starting-points of the cycle. When therefore we read, in the Ebers Papyrus, that Sothis rose on the ninth day of Epiphi (the eleventh calendar month) in the ninth year of Amenhotep I., we are able to fix the date. His ninth year is 1550, and the year of his accession to the throne is 1558.

The value of this particular Sothic date lies in the fact that we know enough from other sources about the XVIIIth Dynasty to be certain of the cycle in which it is to be placed. It cannot be 1460 years before or after 1550. So it is with a Canopus Decree of Ptolemy Euergetes, that gives a double dating for 238 B.C. While, however, these two Sothic datings have proved a harmonising rather than a disturbing factor, it is different with the Kahun Papyrus of the XIIth Dynasty.[1] If we agree to place the date in the cycle that begins in 2781 B.C., it means that Senusert III. must have begun to reign in 1888 B.C. The XIIth Dynasty must in this case have begun in 2000, and ended in 1788. If, however, we listen to Professor Petrie, we move all these dates back precisely 1460 years.

Such is the theory of the Egyptian year, stated in its baldest form, and without qualifications. There is one obvious qualification to make to start with. As the calendar year took four years to move a day away from the Sothic year, we can only fix the dates within a margin of four years. Apart from this, there is a difficulty in the interpretation of Censorinus. Not only is there the possibility, already mentioned,[2] that his text is wrong, but that he has himself made a mistake as to the exact day on which the Sothic cycle during which he wrote, began. It is suggested that it was July 19, A.D. 140, not July 20, A.D. 139.

Whatever view we take on these points, the margin of error is still slight. A more serious question is raised by the consideration of the latitude at which the rising of

[1] See p. 68.

[2] P. 69, n. 1.

Sothis was in each case observed. Oppolzer [1] held that this was in all cases that of Memphis, and that the priests of Memphis had the sole control of the matter. The only reason for holding this is the *a priori* one that anything else would have led to confusion. It is possible that it was the case, but we cannot shut our eyes to the fact that, considering the length of time involved, we are straining to the uttermost the *a priori* argument of religious conservatism. We are maintaining that from the first Dynasties to the days of the Roman Empire, "Greenwich time" was always that of Memphis, and never that of Thebes or Alexandria. It must be noticed, however, that even if we allow that the latitude in question may have varied, the Kahun observation would in any case have been taken from that of Memphis, which is far nearer to Kahun than either Alexandria or Thebes. Censorinus's observation, too—if it was not also taken from the latitude of Memphis—must have been taken from that of Alexandria, and the difference of the time at which Sothis is seen rising in the two latitudes is only two minutes.[2] This would not appreciably affect the dates arrived at for the XIIth Dynasty. The only Sothic dates which would be seriously affected by such an argument would be observations that could reasonably be connected with the latitude of Thebes, in which Sothis rose seven minutes earlier than at Memphis, and nine than at Alexandria.

There is another point in our account that needs explaining. It has been assumed that the 365-day Egyptian calendar year was shorter than the Sothic year by a quarter of a day, and that therefore in four

[1] *S.S.A.* 1885, p. 19.

[2]

	Latitude.	*Apparent rising of Sothis, July 19 Julian, 1321 B.C.*
Alexandria ..	31° 12′ N.	.. .. 15h. 11m.
Cairo	30° 2′	.. .. 15h. 9m.
(Memphis is only 10′ South of Cairo.)		
Thebes	25° 41′	.. .. 15h. 2m.

years it was a day shorter, and in 1460 a year. Now it is the Julian year that contains 365·25 days; our true solar or Gregorian year only contains 365·242+ days. It is with the Julian year, therefore, and not the Gregorian, that our assumption has equated the Sothic year.

The equation is, up to a point, justified by facts. Sirius's own movements, in relation to those of the Sun and Earth, are of such a character that the "Sothic year" is longer than the true solar year, and practically equivalent to the Julian year. The difference between it and the Julian year is not sufficient to vitiate the argument, though it may have meant that the cycle, once or more, began on a different day in the Julian year.

APPENDIX B (to p. 117)

BY PROFESSOR R. S. CONWAY

THE following brief notes were written in answer to a specific question which arose in the course of this inquiry into the origins of Cretan civilisation. It is well to state, therefore, that I have not yet read the book to which they are attached.

Are λαβύρινθος and λαύρα, *Λαύρειον*, connected?

This question, raised by Professor Burrows, admits of no certain answer at present, the negative being, I think, at least as difficult to maintain as the positive. But it is possible to say what phonetic and other assumptions the connection would imply. I take it as obvious that there could not be a better one in point of the meanings.

(*a*) I believe λαβύρινθος to be probably a Cretan form (*i.e.* one belonging to some one or other of the languages spoken in early Crete) for reasons given in 22 ff. of my *Prehell. Inscc. of Præsos* (*B.S.A.* viii.). It is certain, I think, that the ending *-ινθος* is Phrygo-Cretan at least.

(*β*) Eteo-Cretic is certainly an I. Eu. language; but even were it not, a word **lau̯uro-* or **lau̯ro-* (or *-rā-*) might easily be taken over from Cretan-Greek into either Minoan or Eteo-Cretic at an early period, and serve as a base for further formations; so that we might so get *lau̯urintho-* in either Minoan or Eteo-Cretic. In this latter case, we assume intercourse with *Greek* speakers

before the date [1] at which the word λαβύρινθος was first used.

(γ) But another possibility, as Professor Burrows reminds me, must not be overlooked. If, as the archæological and epigraphic evidence seems at least to suggest, "Minoan" was a language entirely distinct from Eteo-Cretic, the kernel of the word, namely λαβ(υ)ρ- (whether β = *b* or *ƀ*, *i.e.* Eng. *v*), may have been Minoan, and taken over from that source into Eteo-Cretic and Greek. The origin of Att. λαύρα is not likely to have had a β or even a *ƀ*, since both would more probably have given *λαβρᾱ. But there is nothing to prevent our supposing a Minoan *laṷur-*, if we can account for the change of *ṷ* to β in Eteo-Cretic and Cretan Greek.

Either view, then, implies that at some date before the first mention of λαβύρινθος in literature -*ṷ*- between vowels—or between a vowel and an *r̥* or *r*—had become "β," *i.e.* either = Eng. *b* or Eng. *v*—in Eteo-Cretic or Cretan Greek. This can be supported by two considerations:

(i) That in Crete *ϝ* was a very tough sound, lasted well on in Cretan Greek till late in the fourth century B.C. or later still, and was denoted by a variety of signs (Brugm. *Gr. Gram.*[3] p. 39); cf. also Gust. Meyer, *Gr. Gram.*[3] (chapter on *ϝ*).

(ii) The probability that Eteo-Cr. *barxe* [2] contains the *s*-aorist stem of Gr. *Fέρξα-*. The colloquial meaning of λαύρα (Aristoph. *Pax*, 99, 158) would agree well with the suggestion that the word belonged to one of the older strata of languages in Attica, dating from times when βαλανεῖα had not yet replaced ἀσάμινθος (see *Preh. Inscc. Præs.* ad fin.).

(δ) One small point remains: what is the relation of

[1] This would naturally, but *not at all necessarily*, be the date at which the thing was first built.

[2] See *Preh. Inscc. of Præsos*, p. 149 (iii.).

λαυρᾱ to a supposed early Minoan or Cretan or Eteo-Cretic *laṷurā-* ? Either (1) *laṷurā* : *laṷrā* may be an I. Eu. doublet like *ἀϝέξω* : *αὔξω*, or (2) *laṷurā-* ← *laṷrrā* may be an Eteo-Cretic change, or even—for all one can say—a feature of Minoan or some early *Greek* dialect in Crete.

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A.P.A. . .	Abhandlungen der Königlich Preussischen Akademie der Wissenschaften. Berlin.
Arch. . .	Archæologia. London.
Arch. Rel. .	Archiv für Religionswissenschaft. Freiburg i. B.
A.S.I. . .	Annual Reports of Board of Regents of Smithsonian Institute. Washington.
Athenæum .	" Athenæum " newspaper. London.
Ath. Mitt.	Mitteilungen d. Deutsch. Arch. Inst. Athenische Abteilung. Athens.
B.C.H. . .	Bulletin de Correspondance Hellénique. Athens.
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C.R.A.I. .	Comptes Rendus de l'Académie des Inscriptions et Belles Lettres. Paris.
C.V.S.F. .	Christiania Videnskabs-Selskabs Forhandlinger. J. Dybwad, Christiania.
D.A.W. .	Denkschriften Akademie Wien. Phil.-Hist. Klasse. Vienna.
Εφ. Αρχ. .	*Ἐφήμερις Ἀρχαιολογική.* Athens.
G.B.A. . .	Gazette des Beaux Arts. Paris.
H. . . .	Hermes. Berlin.
J.A.I. . .	Journal of the Anthropological Institute. London.
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J.O.A.I.W.	Jahreshefte d. Öst. Arch. Inst. in Wien. Vienna.
Man . .	Man, a monthly Record of Anthropological Science, published by Anthrop. Inst. London.
M.I.L. . .	Memorie del R. Instituto Lombardo di Scienze e Lettere. Milan.
Mon. Ant. .	Monumenti Antichi. Accademia dei Lincei. Rome.

Abbreviation.	Full Title.
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O.L.Z. . .	Orientalische Litteratur Zeitung. Berlin.
P.S.A. . .	Proceedings of the Society of Antiquaries. London.
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R.E. Anth.	Revue de l'École d'Anthropologie. Paris.
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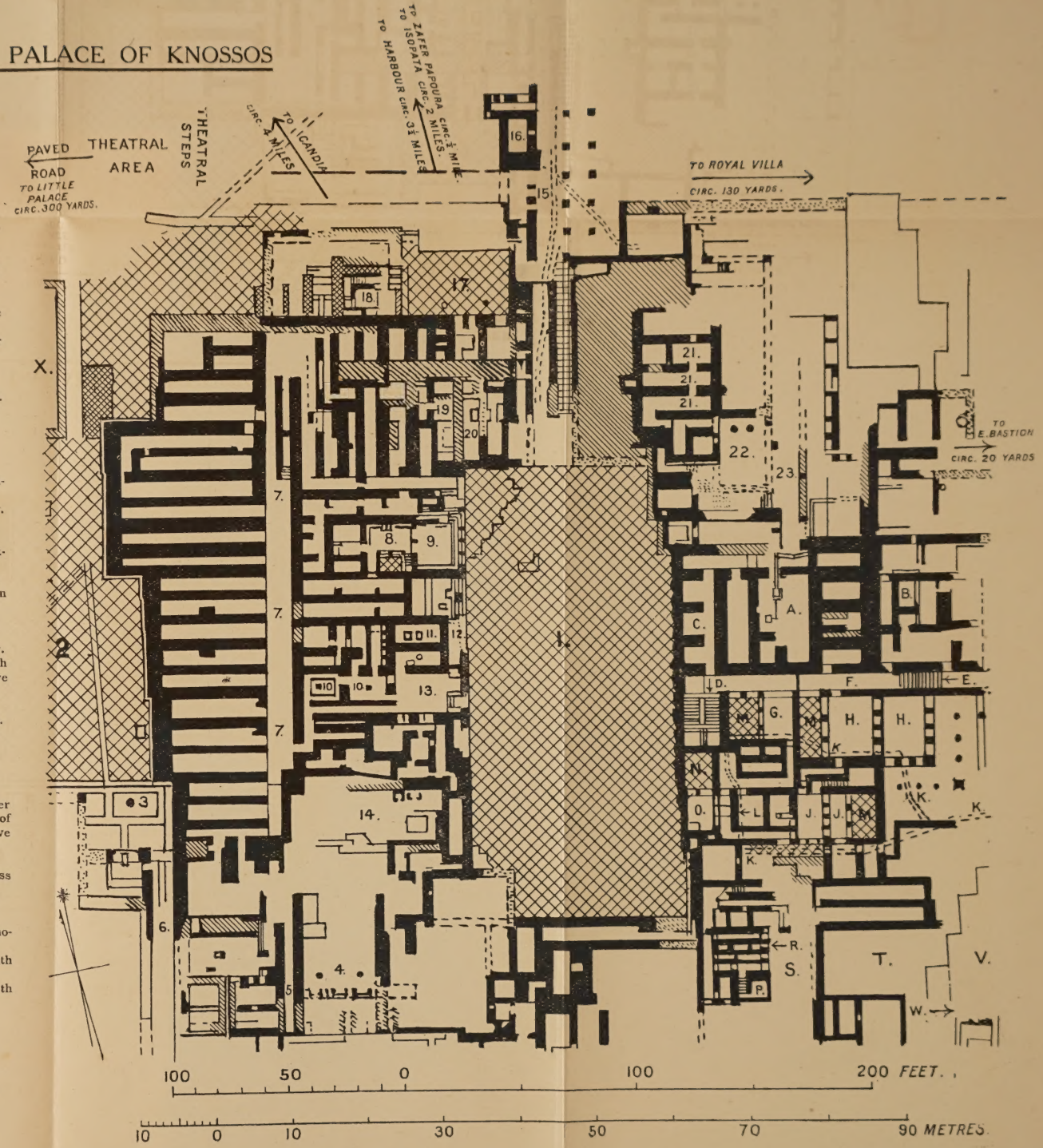
PLAN OF THE PALACE OF KNOSSOS

1. Central Court.
2. West Court.
3. West Portico.
4. South Propylæa.
5. Corridor of the Cupbearer.
6. Corridor of the Procession.
7. Long Gallery with Western Magazines opening out of it on west.
8. Throne Room.
9. Ante-room to Throne Room.
10. West and East Pillar Rooms
11. Temple Repositories.
12. Snake Goddess Shrine.
13. Room of the Column Bases.
14. Court of the Altar.
15. Northern Entrance.
16. Guard House.
17. Northern Portico.
18. Northern Bath.
19. Walled Pit under Bügelkanne Room.
20. Room of Flower Gatherer.
21. North-east Magazines.
22. North-east Hall.
23. Corridor of the Draughtboard.

A. Room of the Olive Press.
B. Sculptor's Workshop (on upper story).
C. Corridor of the Bays.
D. Great Staircase.
E. Stairs to Upper Corridor.
F. Lower Corridor, with Upper Corridor above it.
G. Hall of the Colonnades.
H. Hall of the Double Axes.
J. Queen's Megaron.
K. Drain.
L. Lavatory.
M. Light-wells of G, H, J.
N. Court of the Distaffs.
O. Room of the Plaster Couch, with Room of the Stone Bench above it on upper story.
P. South Tank.
R. Shrine of Dove Goddess and Double Axes.
S. Court of the Sanctuary.
T. South-east Court.
V. Basement of the Monolithic Pillars.
W. South-east House with Pillar Room.
X. North-west Building with Bronze Vessels.


PAVED ROAD TO LITTLE PALACE CIRC. 300 YARDS.
THEATRAL AREA
THEATRAL STEPS
TO ILICANDA CIRC. 4 MILES
TO ZAFER PAPOURA CIRC. ½ MILE.
TO ISOPATA CIRC. 2 MILES.
TO HARBOUR CIRC. 3½ MILES
TO ROYAL VILLA
CIRC. 130 YARDS.
TO E. BASTION
CIRC. 20 YARDS
100 50 0 100 200 FEET.
10 0 10 30 50 70 90 METRES.

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ADDENDA—MAY 1907

SINCE the foregoing pages have been printed off, Dr. D. Mackenzie has, with great kindness and courtesy, sent me the proofs of a valuable article on "Cretan Palaces and the Ægean Civilisation," that is about to appear in *B.S.A.* xii. It is gratifying to find that on the fundamental points raised in Chaps. IX. X. and XI. I am in substantial agreement with him—*e.g.* in regard to the wide diffusion of the Mediterranean Race. His argument that the loin-cloth is a proof of Southern origin is convincing. (1) It occurs early in Crete, not only on the male M.M. I. Petsofa figures (*B.S.A.* ix. Pl. IX., X.), but probably on the squatting female figures from Neolithic Knossos (unpublished; see Welch, *B.S.A.* vi. p. 86). Squatting itself shows Southern origin. (2) Knickerbockers (see my p. 37) are an original l.c. made baggy and long; their wearers are naked above the waist, and some of them are women. (3) Low dresses and flounced or multiple skirts (see my p. 3) represent a development upwards and downwards of an original l.c. for women. (4) Traces of the l.c. can be found in modern Sardinia and the "subligaculum" of early Italy. (5) Northerners, when they *did* come, *i.e.* the Greeks, never adopted the l.c.

It would be ungracious and premature to emphasise points of difference. While agreeing that the Mediterranean element was dominant among the Minoans, I must put in a plea for their mixed character, when we first can test them (see my pp. 165–71). A. Mosso's statement (*Escursioni nel Mediterraneo e gli Scavi di Creta*, Milan, 1907, p. 275), that "a great majority" of his skulls were dolichocephalic, agrees with my conclusions. Sergi's remark (quoted *M.I.L.* xxi. 5, p. 252) is too vague to weigh against the detailed evidence of Duckworth and Hawes. On my p. 166 the M.M. II. Palaikastro skulls may be M.M. I. also (see *B.S.A.* x. pp. 194–5). This strengthens my case.

In regard to the Central Hearth, Dr. Mackenzie argues not only that it was due to the climate of Greece itself (see my pp. 181, 197), but that the house in which it occurs is a development from a Cretan hearthless type. With a fixed hearth you (*a*) gave up a door at the back of your Megaron because the draught would not let your fire burn; and (*b*) made it deeper in proportion to its breadth, incorporating perhaps the back space that in warmer lands you had used as a light-well. Does this novel and clever theory fully account for the great differences between Cretan and Mainland houses (see my

pp. 180–1)? We must wait for a fuller description of the Neolithic houses at Volo (see my p. 56). If there is a common origin, does it not at least date further back than the use of light-wells in Crete?

As on the whole question of Northern influence in the Ægean I occupy a position between Mackenzie and Dörpfeld-Noack (see my pp. 149–50, 178–83, 196–202), so in regard to Eteo-Cretan I stand as at least a possible halfway-house between Mackenzie and Conway (see my pp. 151–8, 163). When Ridgeway and Conway discuss the ethnology of Patricians and Plebeians at Rome (see full report of meeting of British Academy, *Athenæum*, May 4, 1907), I am as anxious that pre-Indo-European elements should not be ignored as I am in Mackenzie's case that he should consider the possibility of successive Indo-European strata.

In regard to the Harvester Vase, Mackenzie (*a*) rejects Savignoni's view that the singers are women (see my p. 36); (*b*) sees a pad "to obviate friction during sheaf-binding" above the left thigh of all the fork-bearers; (*c*) believes that the sistrum-player is a Cretan. What, however, of the absence of the narrow waist (see my pp. 36, 173)?

Dr. Mosso's book, which has also just reached me, is a brightly written story of travel, and contains many beautiful illustrations for the modest price of ten francs. He has been apparently fortunate enough to get a permission, which was refused to me, to publish the Chieftain Vase (figs. 33–4, pp. 55–6). Along with Dr. Mackenzie I accept his suggestion that the figure in the centre of the Palaikastro dance is not, as Dawkins held (cp. my p. 138 with my p. 22), a Snake Goddess, but a musician playing a lyre, the frame of which took an animal shape, as in that upon the Hagia Triada Sarcophagus (cp. fig. 124, p. 225, with fig. 145, p. 260). He announces (p. 251) an interesting discovery by Dr. Pernier, at Priniá near Gortyna, of an archaic Greek stele representing a huge Northerner with a round shield and greaves threatening a tiny man in "Mycenæan" costume who is in an attitude of supplication. We have here a counter to the stele from Mycenæ, if my interpretation of it be correct (see my pp. 183, 201). We may adapt Dumas, and christen it "Cent Ans Après"!

In conclusion, Mr. J. K. Fotheringham writes in *J.H.S.* xxvii. (published May 6, 1907), pp. 75–89, criticising, as a specialist on Eusebius, Mr. Myres's article on the Thalassocracies (see my p. 143). Myres replies (*ibid.* pp. 123–30), but admits that he has made arithmetical slips in his Chronology. My views as to Caria do not depend on his reconstruction of Eusebius, and it will be safer not to use it in their support.

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